STR-V45

US Model
Canadian Model
E Model

FM STEREO/FM-AM RECEIVER

SPECIFICATIONS

GENERAL

Power Requirements: 120 V ac, 60 Hz (US, Canadian model)
110, 120, 220, 240V ~ adjustable, 50/60 Hz (E model)

Power Consumption: US model: 115 W
Canadian model: 180 W
E model: 180 W

AC Outlet: 1 switched, 100 W
1 unswitched, 300 W

Dimensions: US, E model:
Approx. 430 (w) x 135 (h) x 380 (d) mm
17 (w) x 5 1/4 (h) x 14 7/8 (d) inches
Canadian model:
Approx. 460 (w) x 135 (h) x 380 (d) mm
18 (w) x 5 1/4 (h) x 14 7/8 (d) inches
including projecting parts and controls

Weight: US, E model:
Approx. 8.5 kg, 18 lb 12 oz (net)
Approx. 9.7 kg, 21 lb 7 oz (in shipping carton)
Canadian model:
Approx. 9.3 kg, 20 lb 9 oz (net)
Approx. 10.5 kg, 23 lb 3 oz (in shipping carton)

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES, LES VUES EXPLOSÉES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

FM TUNER SECTION

Antenna: 300 Ω balanced
75 Ω unbalanced

Frequency Range: 87.5 – 107.9 MHz (US, Canadian model)
87.5 – 108.0 MHz (E model)

Intermediate Frequency: 10.7 MHz

Sensitivity at 50dB Quieting: US, Canadian model:
16.1 dBf, 3.5 μV (12 dB) (MONO)
36.1 dBf, 35μV (30.8dB) (STEREO)
E model:
18.3 dBf, 4.5 μV (13 dB) (MONO)
38.3 dBf, 45 μV (33 dB) (STEREO)

– Continued on page 2 –

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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Usable Sensitivity: US, Canadian model:
10.3 dBf, IHF 1.8 μV (5 dB)
E model:
11.2 dBf, IHF 2.0 μV (6 dB)

S/N Ratio: US, Canadian model:
75 dB (MONO)
70 dB (STEREO)
E model:
77 dB (MONO)
71 dB (STEREO)

Harmonic Distortion:

	MONO	STEREO
100 Hz	0.1 %	0.2 %
1 kHz	0.1 %	0.15 %
6 kHz	0.15 %	0.2 %

Separation: 40 dB at 100 Hz
45 dB (US, Canadian model), 50 dB (E model) at 1 kHz
35 dB at 10 kHz

Frequency Response: 30 Hz – 15 kHz $^{+0.5}_{-1.5}$ dB

Alternate Channel Selectivity: 80 dB (US, Canadian model), 85 dB (E model) at 400 kHz

Capture Ratio: US, Canadian model:
1.0 dB
E model:
1.5 dB

AM Suppression Ratio: US, Canadian model:
50 dB
E model:
60 dB

Image Response Ratio: 85 dB

IF Response Ratio: 100 dB

Spurious Response Ratio: 95 dB

RF Intermodulation: US, Canadian model:
65 dB
E model:
78 dB (IHF)
93 dB (2.4 MHz)

Sub-carrier Product Ratio: US, Canadian model:
40 dB
E model:
55 dB

Muting Threshold: US, Canadian model:
Approx. 20 dBf, 5.5 μV
E model:
Approx. 25.2 dBf, 10 μV

Auto Tuning Level: US, Canadian model:
LOW: 25 dBf
MID: 40 dBf
HIGH: 60 dBf
E model:
LOW: 30 dBf
MID: 40 dBf
HIGH: 55 dBf

AM TUNER SECTION

Antenna: Built-in ferrite-rod antenna
External antenna terminals

Frequency Range: 530 –1,610 kHz (10 kHz steps)
522 – 1,602 kHz (9 kHz steps)

Intermediate Frequency: 450 kHz

Usable Sensitivity: (at 1,000kHz) US, Canadian model:
300 μV/m (49.5 dB/m), built-in antenna
100 μV (40 dB), external antenna
E model:
250 μV/m (48 dB/m), built-in antenna
100 μV (40 dB), external antenna

S/N Ratio: (at 50 mV/m) US, Canadian model:
50 dB
E model:
52 dB

Harmonic Distortion: 0.5 % at 50 mV/m, 400 Hz

Alternate Channel Selectivity: US, Canadian model:
40 dB at 10 kHz
E model:
40 dB at 9 kHz

AUDIO AMPLIFIER SECTION

Power Output and Total Harmonic Distortion: With 8 Ω loads, both channels driven from 20 – 20,000 Hz; rated 40 W per channel minimum RMS power, with no more than 0.04 % total harmonic distortion from 250 mW to rated output.

Power Bandwidth: 5 Hz – 35 kHz (IHF)

Damping Factor: 50 at 1 kHz, 8 Ω

Harmonic Distortion: Less than 0.04 % at rated output

Dynamic Headroom: 1.4 dB

IM Distortion: (60Hz : 7kHz = 4 : 1) Less than 0.04 % at rated output
Less than 0.1 % at 1 W output

Residual Noise: Less than 0.23 mV at 8 Ω

Frequency Response: PHONO:
RIAA equalization curve ± 0.5 dB
AUX, TAPE 1, 2:
5 Hz – 50 kHz $^{+0}_{-1}$ dB

– Continued on next page –

Inputs: Measured with rated output power into 8 Ω loads (both channels driven simultaneously) at 1 kHz.

	Sensitivity	Impedance	S/N	Weighting Network
PHONO	2.5 mV (−50 dB)	50 kΩ	80 dB 77 dB*	A
AUX TAPE 1, 2	150 mV (−14.5 dB)	50 kΩ	97 dB 74 dB*	A

*: 1978 IHF

Outputs: With rated input, FM 30 % modulation,

	Voltage	Impedance
REC OUT 1, 2	150 mV (−14.5 dB)	10 kΩ
HEADPHONES	Accepts low-impedance headphones	
SPEAKER	8 Ω to 16 Ω speakers are suitable	

Tone Controls: BASS ±10 dB at 50 Hz
TREBLE ±10 dB at 20 kHz

Loudness Control: +10 dB at 50 Hz (automatic)
(att. 30dB) +3 dB at 10 kHz

Filter: LOW: 12 dB/octave attenuation below 15 Hz

MODEL IDENTIFICATION
– Specification Labels –

US model:

FM STEREO/FM-AM RECEIVER
MODEL NO.STR-V45
FREQ RANGE: FM87.5-107.9MHz AM530-1610kHz
IF :FM 10.7MHz AM 450kHz
AC 120V 60Hz 115W
SERIAL NO. MADE IN JAPAN
CERTIFICATION : DESIGN CERTIFIED AS COMPLYING WITH F.C.C RULES PART 15. IN EFFECT AS OF DATE OF MANUFACTURE.

E model:

FM STEREO/FM-AM RECEIVER
MODEL NO. STR-V45
FREQ RANGE: FM87.5-108MHz AM522-1602kHz
IF :FM 10.7MHz AM 450kHz
AC 110,120,220,240V~50/60Hz 180W
SERIAL NO.
MADE IN JAPAN

Canadian model:

FM STEREO/FM-AM RECEIVER
MODEL NO.STR-V45
FREQ RANGE: FM87.5-107.9MHz AM530-1610kHz
IF :FM 10.7MHz AM 450kHz
AC 120V 60Hz 180W
SERIAL NO.
MADE IN JAPAN

SERVICING NOTES

INSTALLATION PRECAUTION

The epoxy resin used in a luminous diode is a kind of thermosetting resin, but as a diode must let the light pass through, its heat resistance cannot be raised by mixing silica or glass fiber.
Thus, the resin used in the luminous diodes is usually weak against heat. As the tensile strength is not so strong while it is heated, note the following precautions during soldering.

1) Perform the soldering within 5 seconds with a soldering iron below 25W. The clearance between the tube and the board should be more than 3 mm (Fig. 1).

2) When changing the position of the luminous diode, do not move it right after soldering, but move it after it naturally cools off.

3) When bending the lead terminals, be sure to bend the point 2 mm farther from the tube. At this time, fix the foot of the terminal with a round nose plier and be sure that no force is applied to the tube. If not, a crack may occur (Fig. 2).

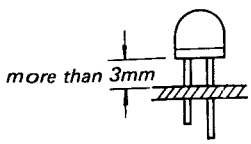


Fig. 1

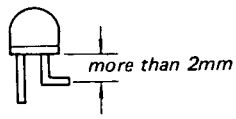


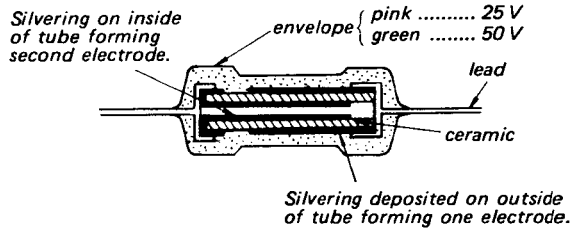
Fig. 2

THE CERAMIC CAPACITORS

This set uses tube-type ceramic capacitors whose shape is identical with the carbon resistors. Be careful not to use resistors instead of capacitors in repairing.

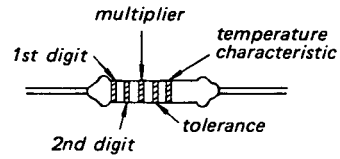
Disc-type ceramic capacitors can be used for replacing those originally used in the set.

Two kinds of drilled holes are provided in some patterns for mounting the tube-type and disc-type ceramic capacitors. Use appropriate holes where applicable.

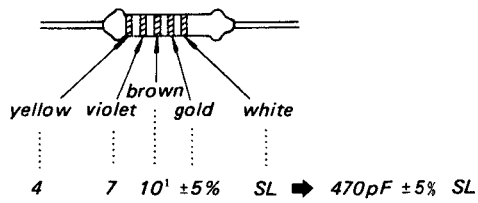


COLOR CODE (in pF)

Color	1st or 2nd Digit	Multiplier	Tolerance	Temperature charac-teristic
brown	1	10^1		Y
red	2	10^2		D
orange	3	10^3		
yellow	4	10^4		RH
green	5			
blue	6			
violet	7			UJ
gray	8		±30%	X
white	9			SL
black	0	10^0	±20%	CH
gold		10^{-1}	± 5%	V
silver		10^{-2}	±10%	B



Example:



Handling Precautions for MOS ICs

Generally, the insulation resistance of the oxide layer in MOS IC structures is very high, and the oxide layer is very thin. Because of this, it is possible that the static voltages usually present on clothes and the human body will be enough to generate a potential difference across the insulator, high enough to cause a breakdown of the insulating layer.

The following precautions should be taken while handling these ICs.

(Particular care should be taken under conditions of low humidity.)

Precautions in Replacing MOS ICs

1. Store new ICs by inserting them into a urethane-polyester cushion (which is somewhat conductive), or wrapping it in aluminum foil, so that all the pins are at the same potential.
   (The ICs should be stored in that manner until mounted on the circuit board.)

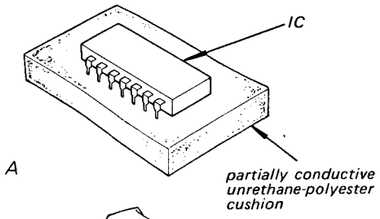


Fig. A

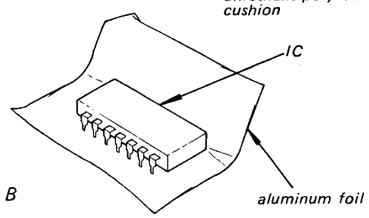


Fig. B

2. Check the soldering iron for possible power-line leakage current. Make sure that there is no leakage path by connecting an ohmmeter to the tip of the soldering iron and the plug as shown in Fig. C. If there is a leakage path, use some other soldering iron.

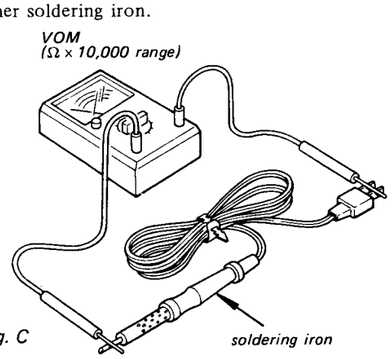


Fig. C

3. Equalize any potential difference between the clothes, the tools in use, the work bench, the set being worked on, and the packaged IC by touching them all in succession with the hands or a conductive wire or tool.

4. The following are effective methods for handling ICs that remove the potential difference across the oxide layer.
   - Use a paper clip modified by soldering in a wire braid insert.

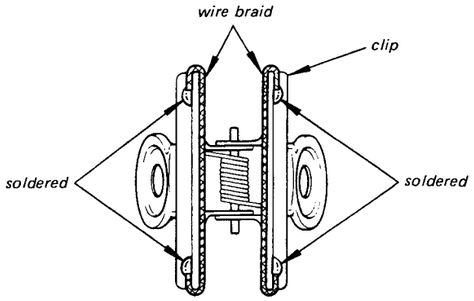


Fig. D

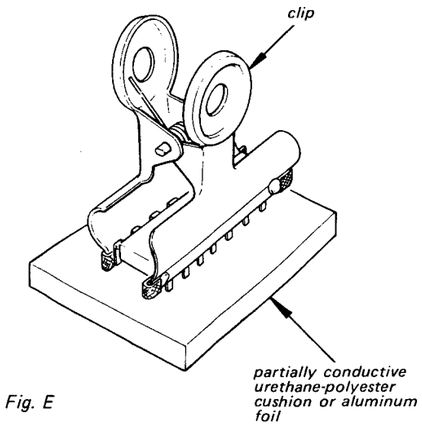
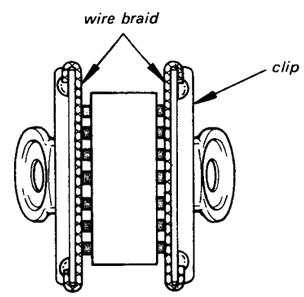


Fig. E



Make sure that all the pins are in contact with the wire braid (all the pins will then be at the same potential.).

Fig. F

- Take a short length of fine bare wire and wind it around the IC so that it shorts all the pins of the IC, while it is still in the urethane-polyester cushion or aluminum foil. This ensures that all the pins are at the same potential.

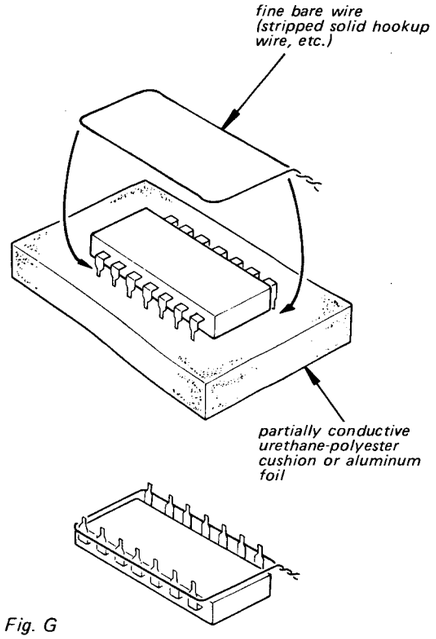


Fig. G

- When it is necessary to handle the IC with the fingers, do not touch any pin, and hold the IC at the ends of its plastic-package case as shown in Fig. H.

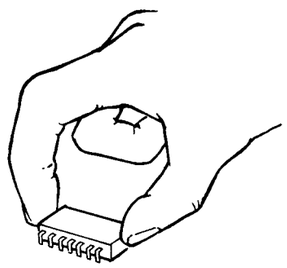


Fig. H

5. Method of Mounting
   Insert the IC while holding it with the modified clip, and solder all the pins with the clip still shorting the pins. (Similarly, solder all the pins while the bare shorting wire is still wound around them.). Remove the clip or the bare shorting wire only after all the pins have been soldered.

Precaution while Checking C-MOS ICs

The C-MOS ICs (Complementary MOS) are MOS ICs that have their output sections made up of N-channel and P-channel push-pull stages to increase their speed of operation. If the output terminal of these ICs comes into contact with B+ or B– voltage, then the FET which is ON at that time will either become shorted or open.

This is valid for all the output sections that are connected together by the interconnections. Even the circuits that are physically separated (and not on the same board) can be destroyed simultaneously.

Example:

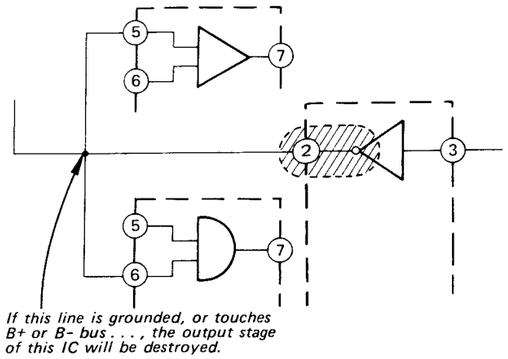
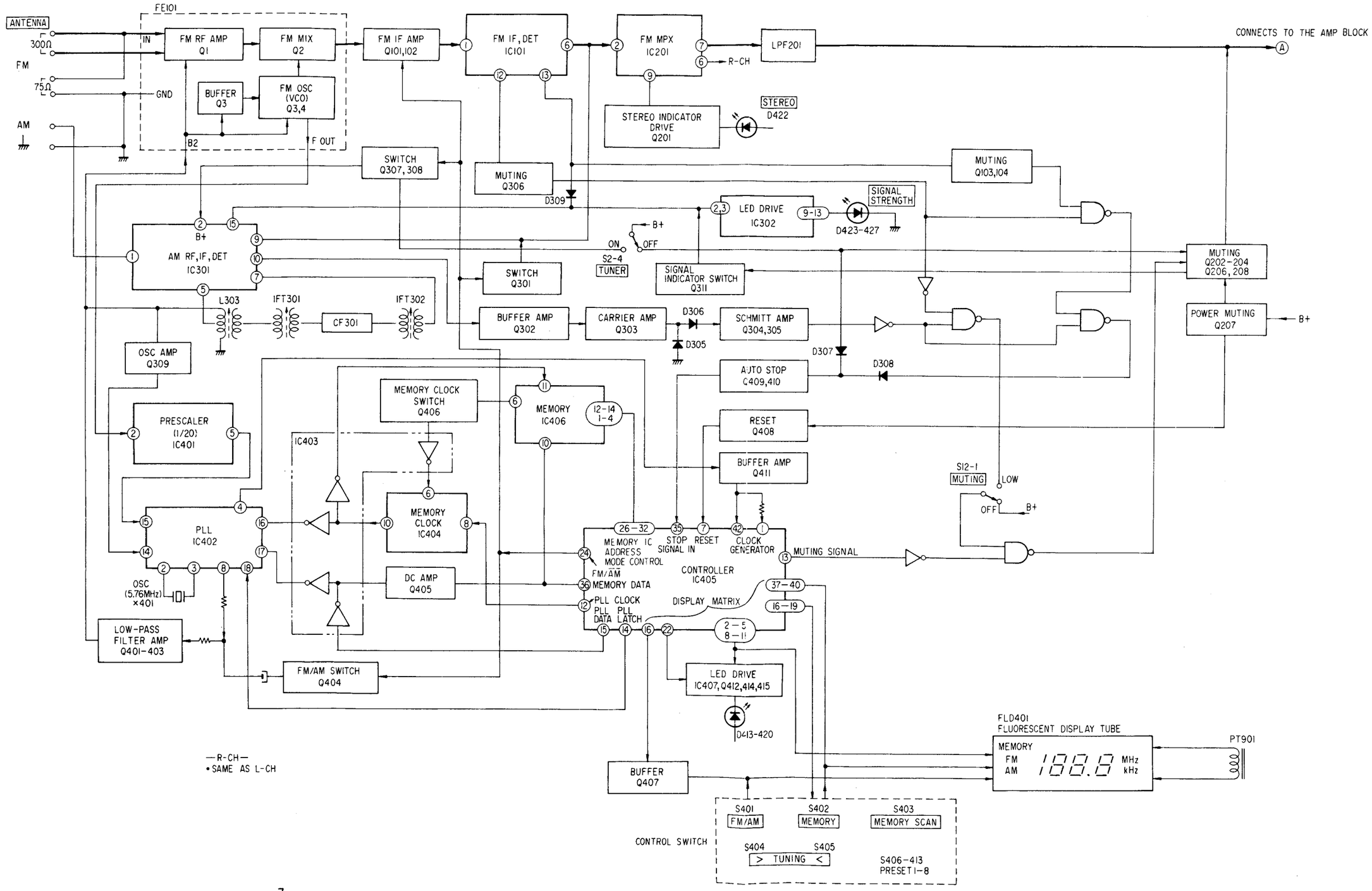


Fig. I

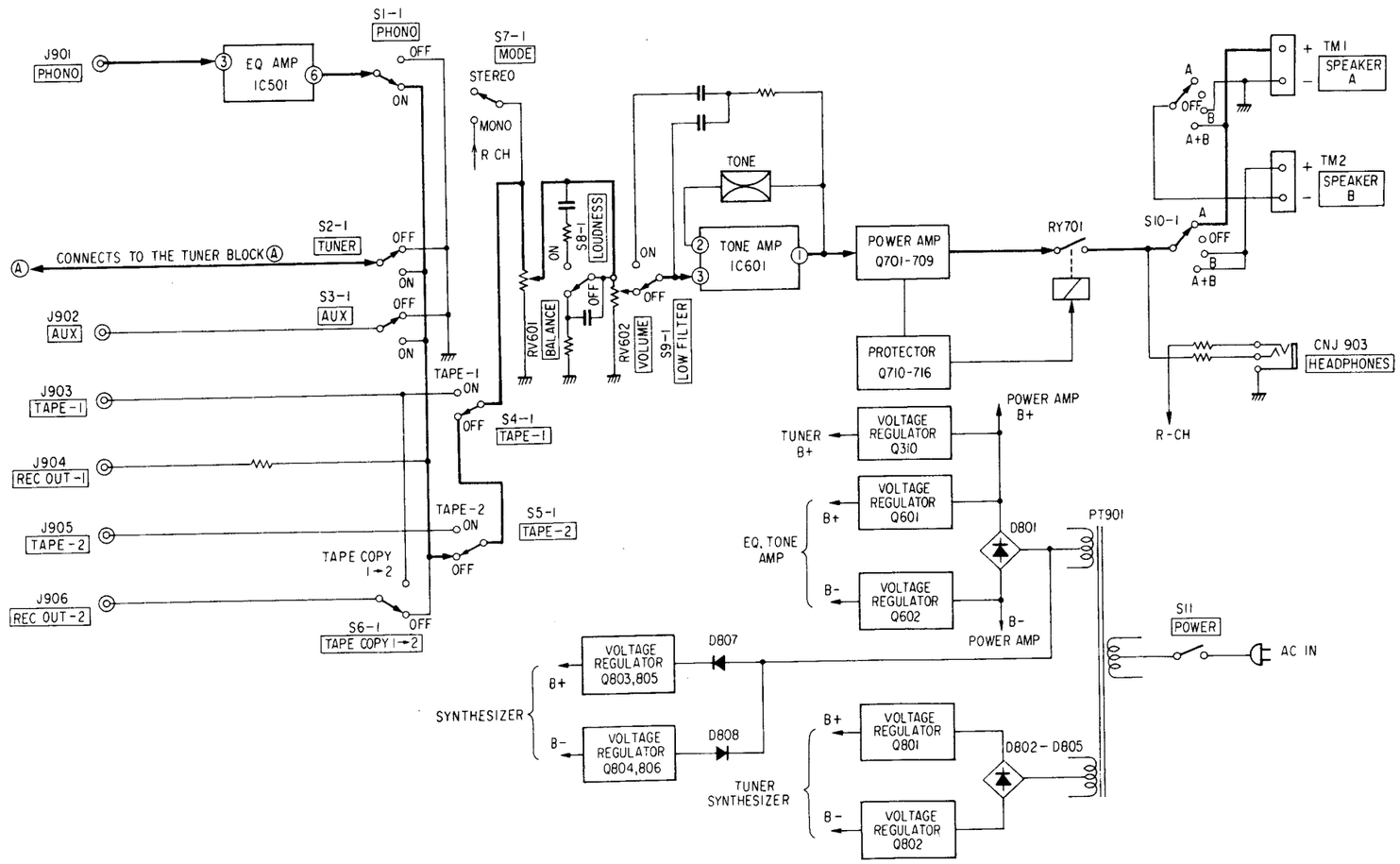
SECTION 1
OUTLINE

1-1. BLOCK DIAGRAMS

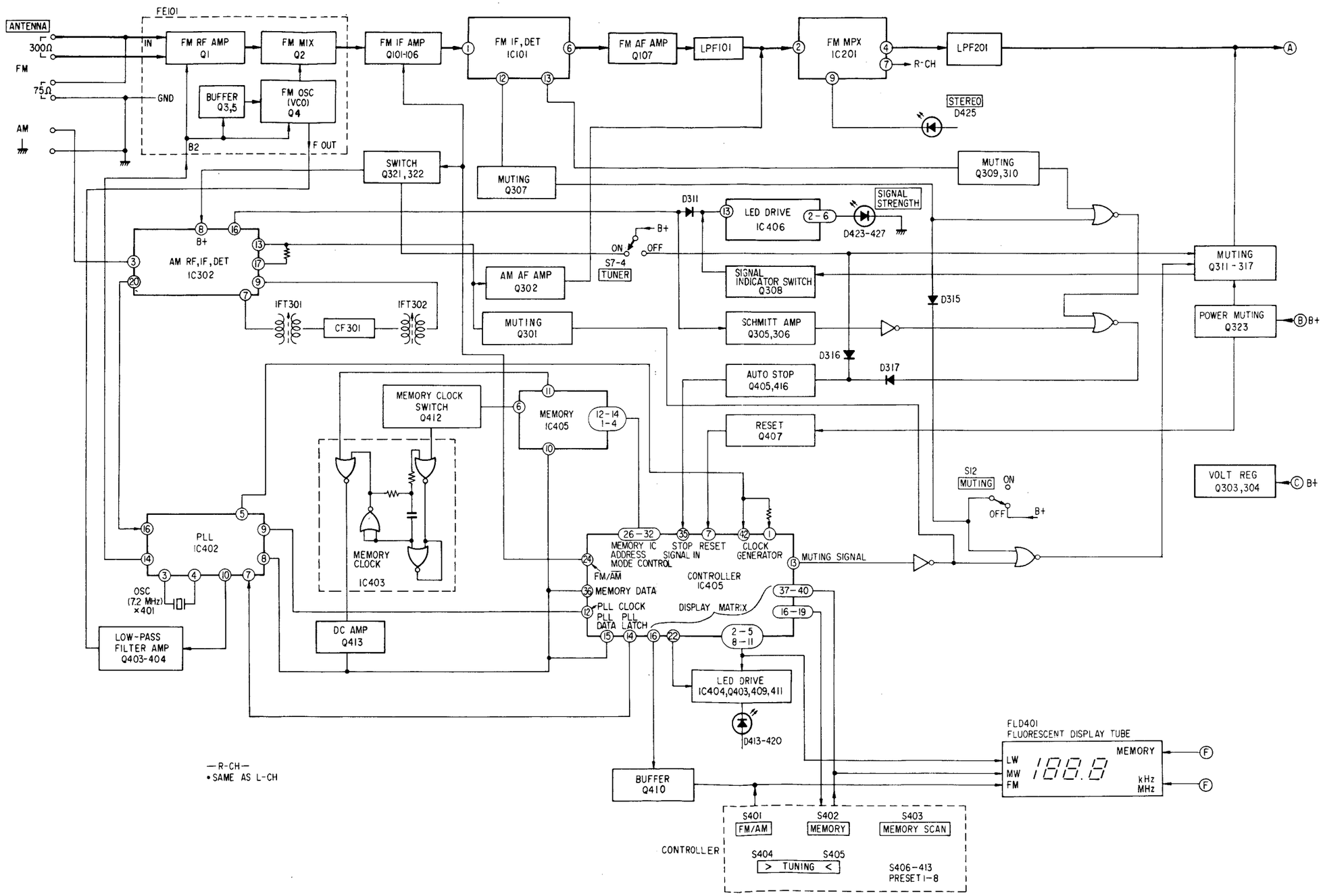
(a) Tuner Section (US, Canadian model)



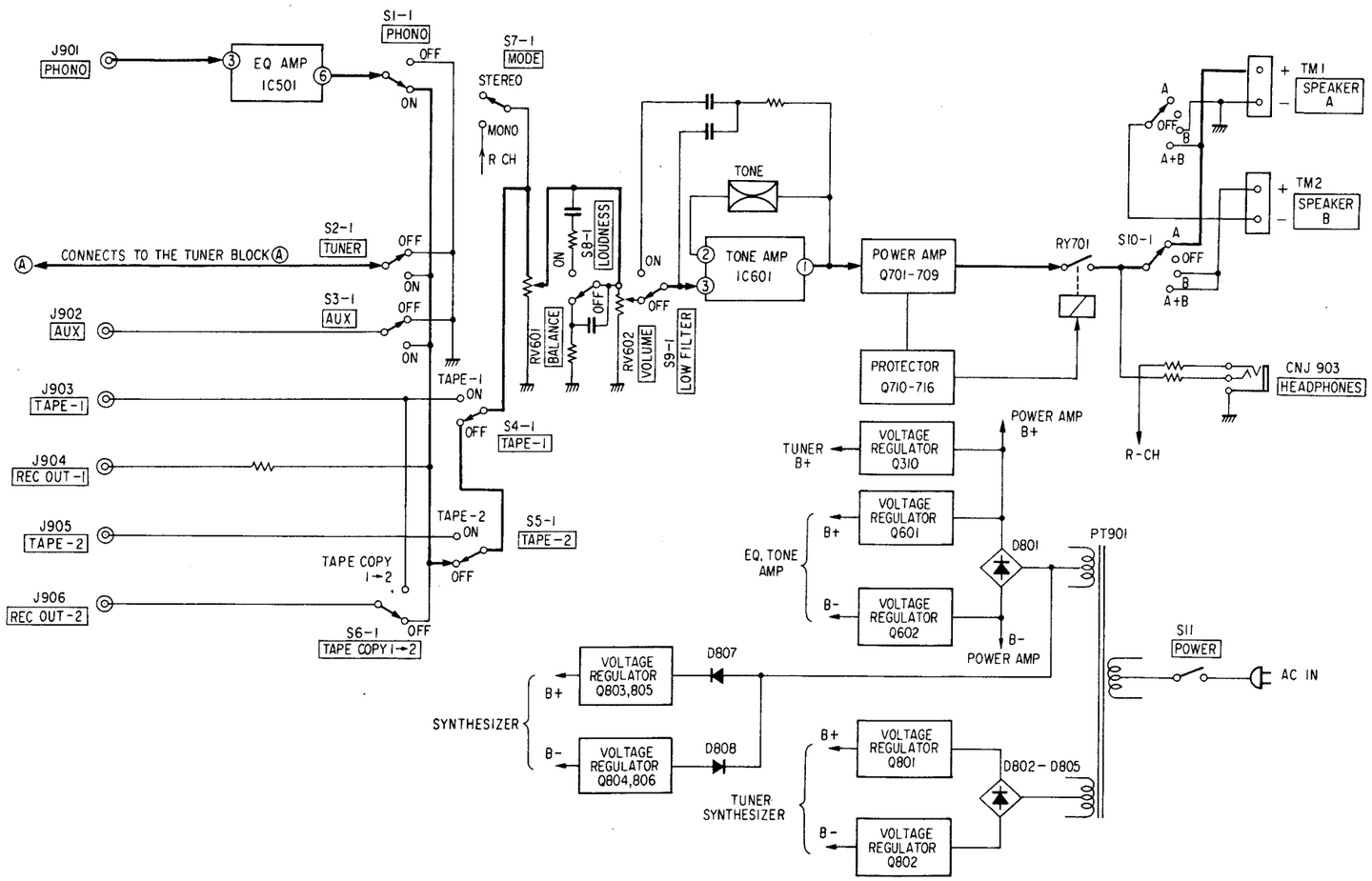
(b) Amp Section (US, Canadian model)



(c) Tuner Section (E model)



(d) Amp Section (E model)



Outline of μPD552C037 (IC405):

This is a four-bit control microcomputer composed of ALU, ROM, RAM, I/O Ports and control circuit all of which are processed in four-bit parallel manner and are included on a small single chip.

P-channel MOS
ROM (100 x 8-bits)
RAM (64 x 4-bits)

Input Ports A and B
Input/output Ports C and D
Output Ports E, F, G, H, and I
} four-bits each except for Port I which is three bits

Clock Frequency: 360 kHz

Input signal is obtained from terminal 4 of the divider output in PLL μPD2819C.

42-pin Plastic Dual-in-Line Package

I/O Ports:

Table 1

Port	Terminal	Function
PA_0	33	AUTO/$\overline{\text{MANUAL}}$
PA_1	34	$\overline{\text{9kHz}}$/10kHz
PA_2	35	Input for AUTO TUNING stop signal
PA_3	36	Input for memory IC's data
$PB_{0\text{-}3}$	37–40	Refer to Fig. 1.
$PC_{0\text{-}3}$	2–5	
$PD_{0\text{-}3}$	8–11	
$PF_{0\text{-}3}$	16–19	
PG_0	22	
PG_1	23	N/A
PG_2	24	FM/$\overline{\text{AM}}$
PG_3	25	N/A
PE_0	12	Clock output for PLL memory IC
PE_1	13	Output for muting pulse
PE_2	14	Output for PLL latch
PE_3	15	Output for PLL and memory IC
PH_0	26	Outputs for memory IC address
PH_1	27	
PH_2	28	
PH_3	29	
PI_0	30	→C1 Outputs for memory IC mode control
PI_1	31	→C2
PI_2	32	→C3

μPD2819C (IC402)

This is a CMOS LSI for the PLL frequency synthesizer designed for AM and/or FM radio/receiver.

Outline of μPD2819C:

18-pin molded DIP (dual-in-line package)

Data inputs are only three (3) because the data are put into the IC successively.

Has two input terminals for programmable divider and these terminals are selectable according to the program data (AM/FM).

Has an output (terminal 4) of 360 kHz for the controller.

Refer to the schematic diagram for its block diagram.

Table 2. Function of Terminals:

Terminal	Function
1	5 V power supply
2	5.76 MHz crystal oscillator
3	
4	Output 1 for 360 kHz clock signal
5	90 kHz test terminal 3
6	25 Hz clock signal output 2
7	unlock-detection terminal "1" (high) when PLL is locked, pulsative waveform when PLL is unlocked
8	Output terminal for phase comparator
9	Test terminal 1 for frequency comparison
10	Test terminal 2 for programmable divider's output
11	Input terminal for filter amp
12	Output terminal for filter amp
13	Grounding terminal
14	Input terminal 1 for programmable divider (AM)
15	Input terminal 2 for programmable divider (FM)
16	Shift register clock
17	Shift register data
18	Latch clock

Note: Terminals 16 – 18 are the input terminals for the program to decide the division ratio of the programmable divider, switching of terminals 11 and 12, and to decide the comparison frequency.

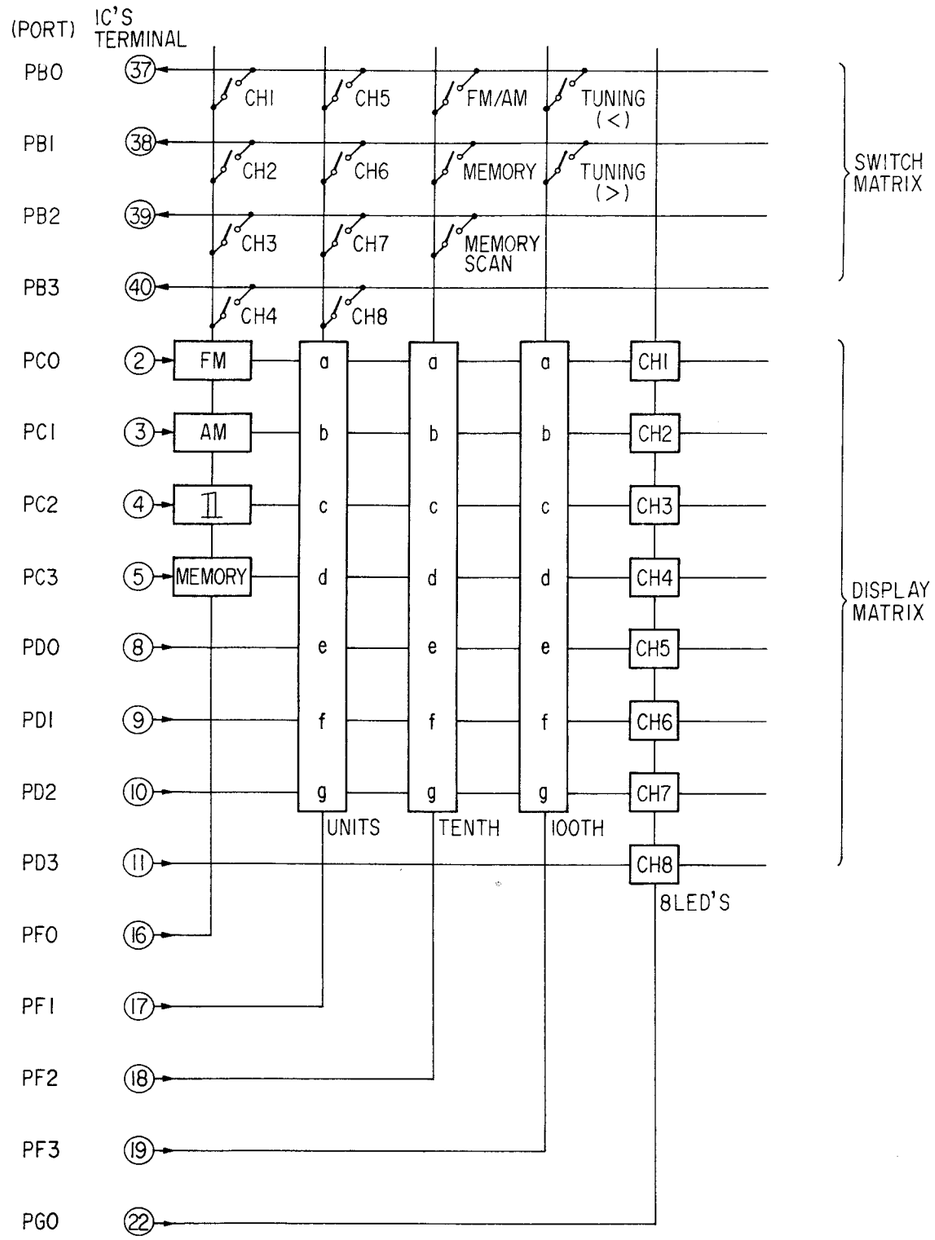


Fig. 1. Switches and Indication Matrix
(US, Canadian model)

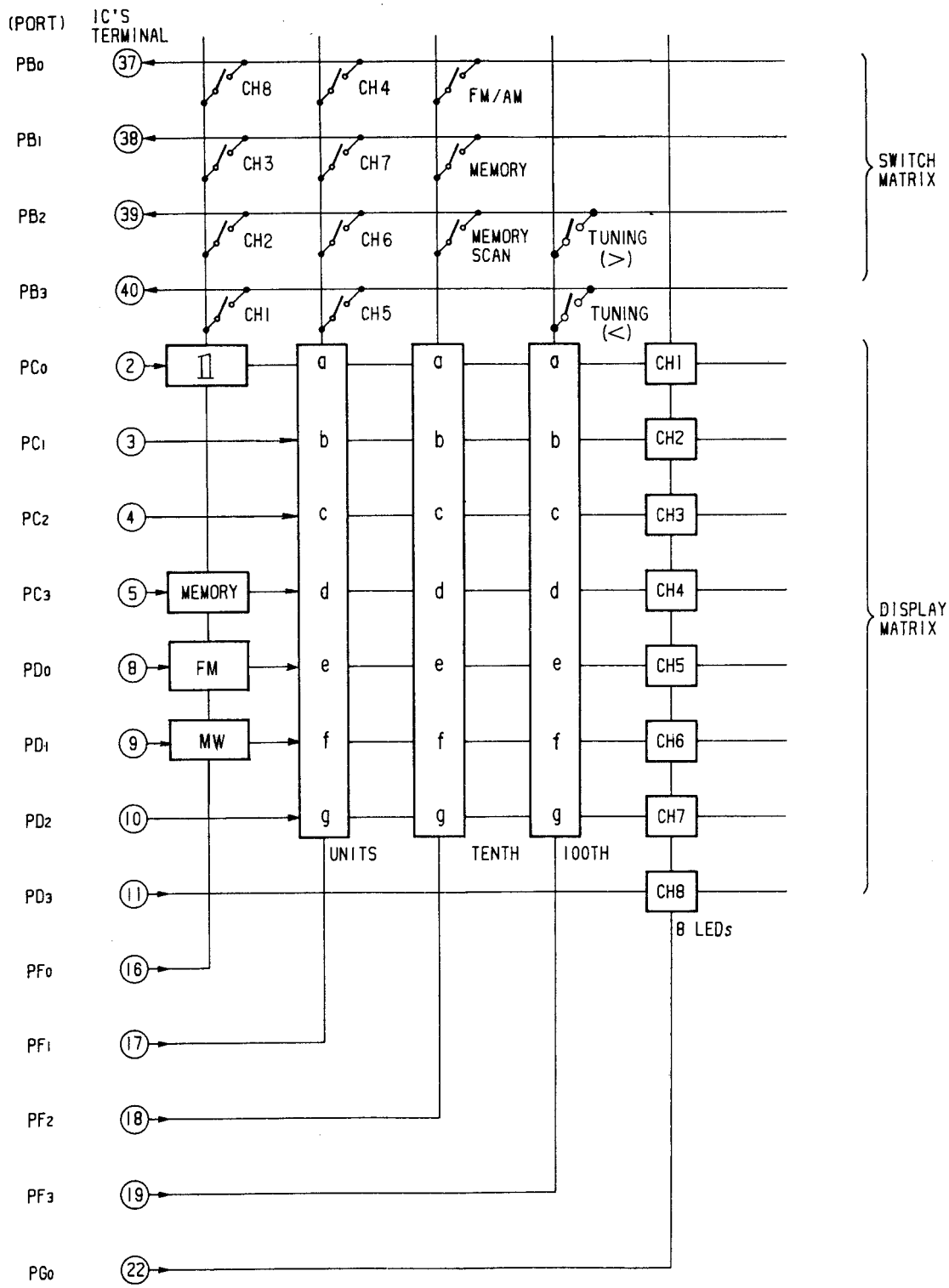


Fig. 2. Switches and Indication Matrix
(E model)

MEMORY IC CX761 (IC406)

Outline of CX761:

(a) This is a non-volatile memory IC. Has 228 (14 words x 16 bits + 4 bits) non-volatile memory transistors built in, and works for reading, erasure and writing the data word.

(b) Because of being a non-volatile type memory, this IC maintains the memorized informations for a long time without a battery back-up after the power switch is turned off.

(c) Word address is done by the BCD inputs.

(d) Silicon-type P-channel enhancement MNOS IC construction.

(e) 14-pin molded DIP casing.

Refer to the schematic diagram for the block diagram.

Table 3. Function of Terminals:

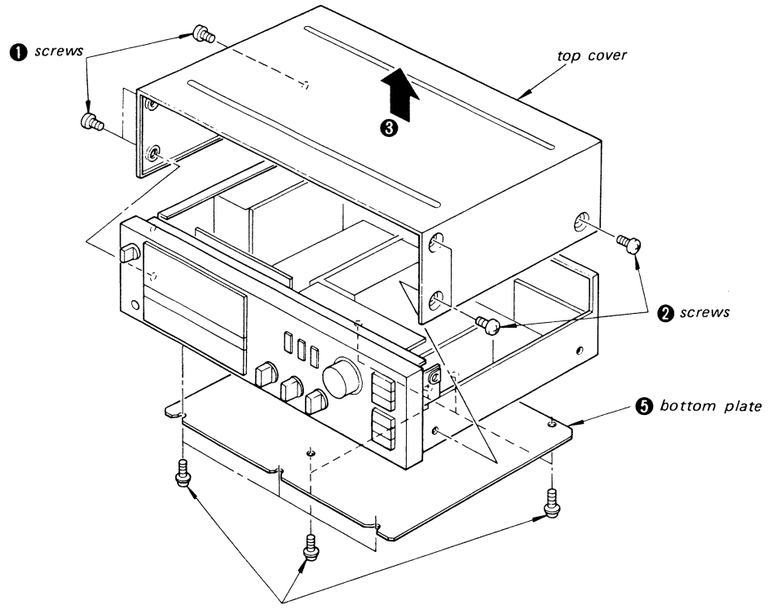
Terminal	IN or OUT	Function
1	IN	Word address D
2	IN	Word address C
3	IN	Word address B
4	IN	Word address A
5	IN	Power supply input
6	IN/OUT	Writing and erasure control inputs/memory-BUSY output
7	IN	Power supply input
8	IN/OUT	Inputs and outputs for test checkout
9	IN	Test signal
10	IN/OUT	Combined data inputs and data outputs
11	IN	Input for synchronous clock
12	IN	Input for mode control C3
13	IN	Input for mode control C2
14	IN	Input for mode control C1

SECTION 2
DISASSEMBLY

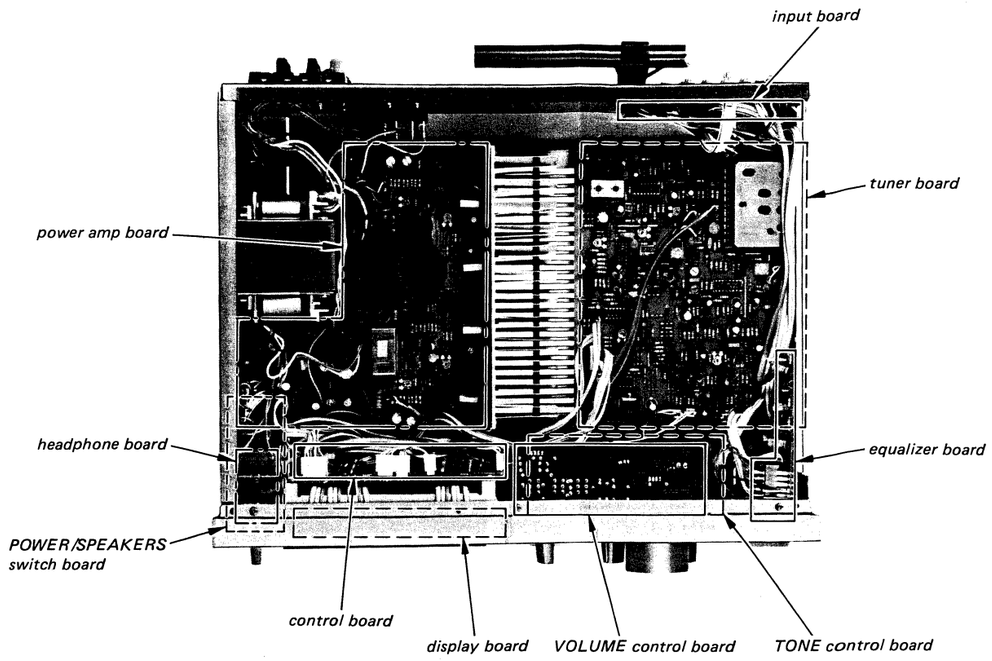
Note: Follow the disassembly procedure in the numerical order given.

TOP COVER AND BOTTOM PLATE REMOVAL

Note: Circuit-board checkouts and adjustments can be made after this removal.

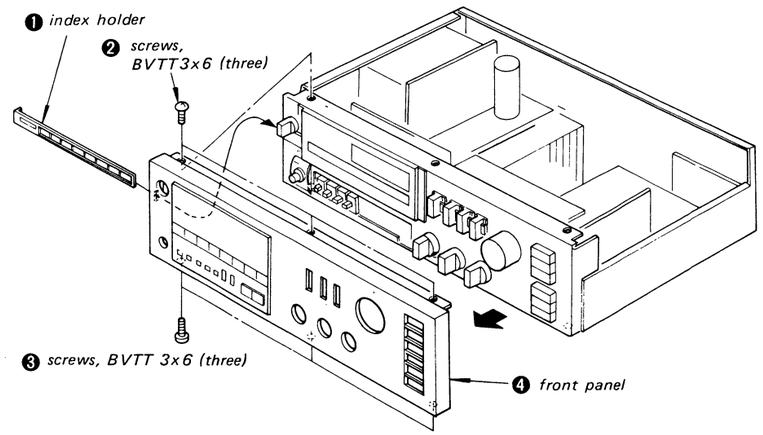


CIRCUIT BOARD LAYOUT

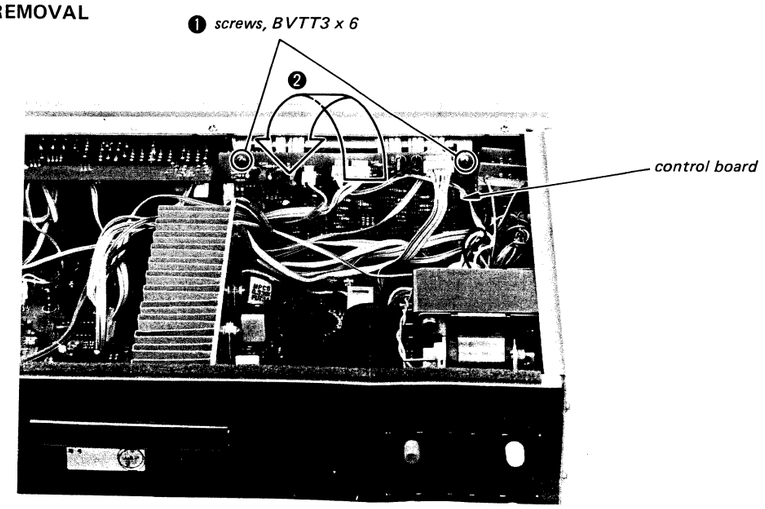


Note: Photograph is of US, Canadian model.

FRONT PANEL REMOVAL



CONTROL BOARD REMOVAL

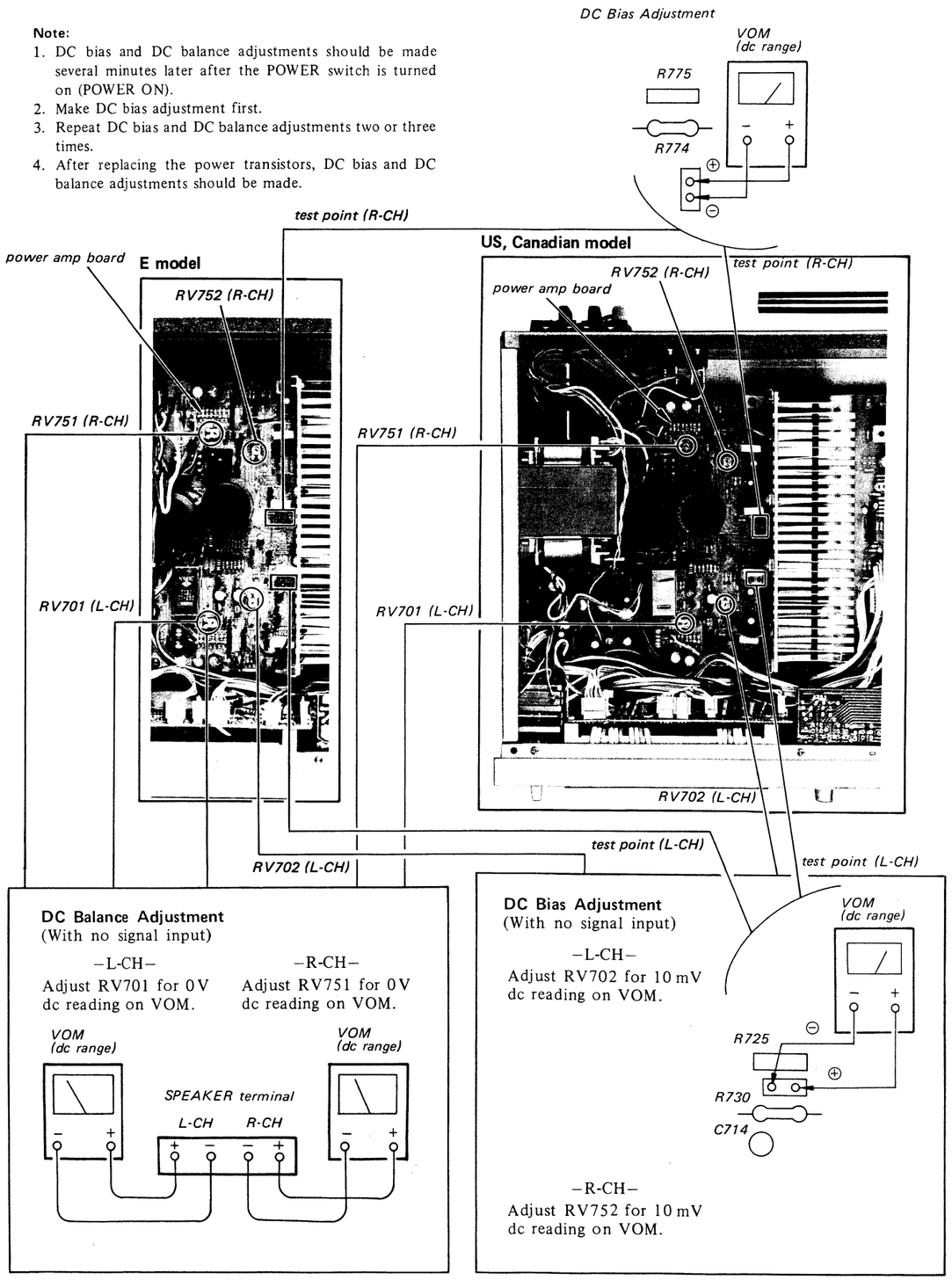


Note: Photograph is of US, Canadian model.

SECTION 3
ADJUSTMENTS

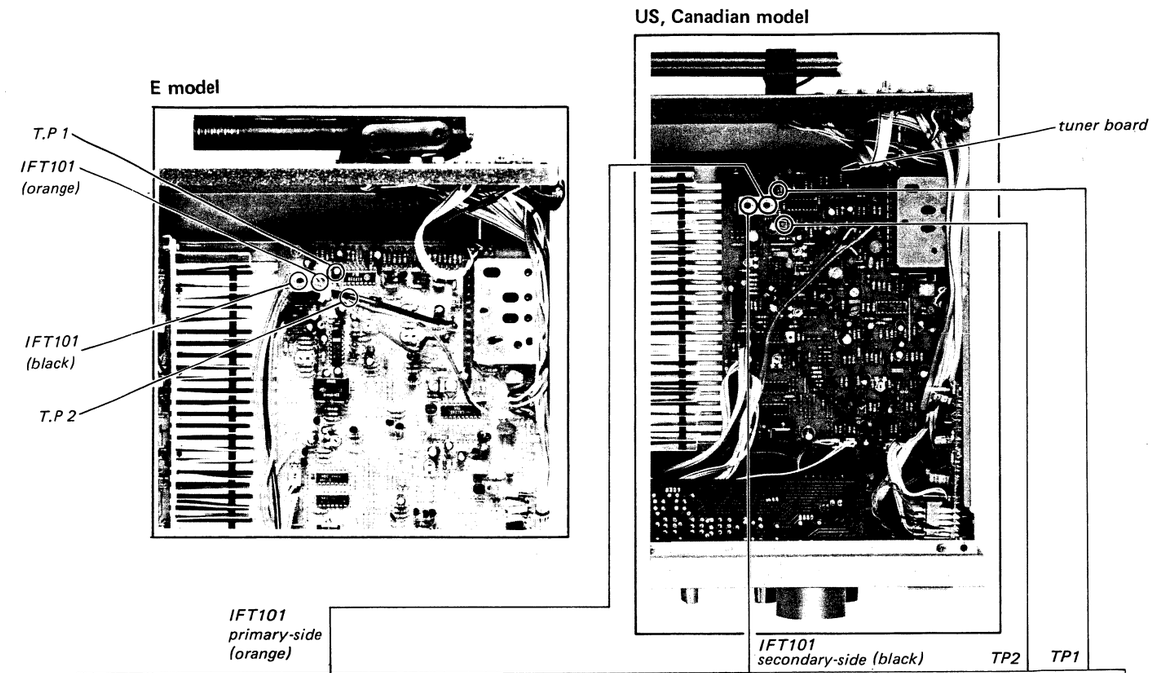
3-1. POWER AMP SECTION

Note:
1. DC bias and DC balance adjustments should be made several minutes later after the POWER switch is turned on (POWER ON).
2. Make DC bias adjustment first.
3. Repeat DC bias and DC balance adjustments two or three times.
4. After replacing the power transistors, DC bias and DC balance adjustments should be made.



3-2. FM SECTION

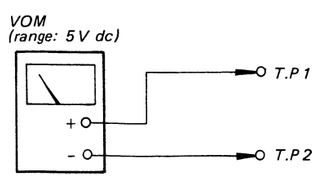
FM stereo standard signal	FM monaural standard signal
Carrier frequency: 98 MHz Modulation: Audio 400Hz 33.75 kHz deviation (45%) Sub channel 38 kHz, 33.75 kHz deviation (45%) Pilot signal 19 kHz, 7.5 kHz deviation (10%)	Carrier frequency: 98 MHz Modulation: 400 Hz, 75 kHz deviation (100%)



FM DISCRIMINATOR (IFT101) ALIGNMENT 1 (PRIMARY-SIDE)

Setting:

FUNCTION switch:	TUNER
FM/AM switch:	FM
MODE switch:	MONO
TUNING switch:	Detuned position



Procedure:

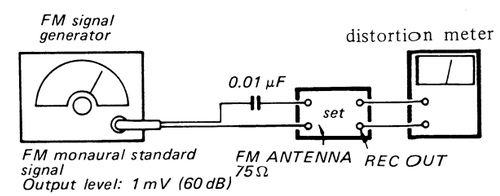
1. Tune the set to 98MHz.
2. Adjust the orange core (primary-side) of IFT101 for 0V reading on VOM.

Note: When replacing the ceramic filters (CF101–CF103), perform this alignment.

FM DISCRIMINATOR (IFT101) ALIGNMENT 2 (SECONDARY-SIDE)

Setting:

FUNCTION switch:	TUNER
FM/AM switch:	FM
MODE switch:	MONO

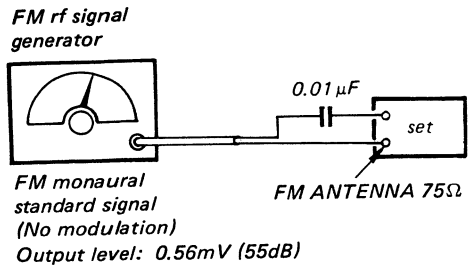


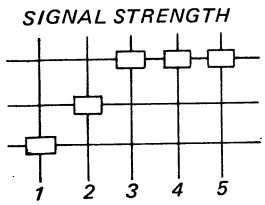
Procedure:

1. Tune the set to 98MHz.
2. Adjust the black core (secondary-side) of IFT101 for minimum distortion.

Note: Repeat the primary-side and secondary-side alignments several times.

SIGNAL INDICATOR ADJUSTMENT

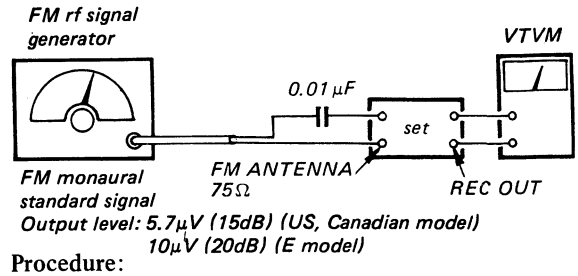




Procedure:
Tune the set to 98MHz and adjust RT301 (US, Canadian model) or RT101 (E model) for all five LEDs of SIGNAL STRENGTH indicator lighting.

FM MUTING LEVEL ADJUSTMENT

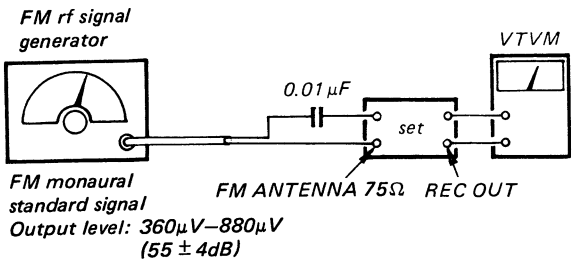
Setting: TUNING LEVEL-LOW switch: ON



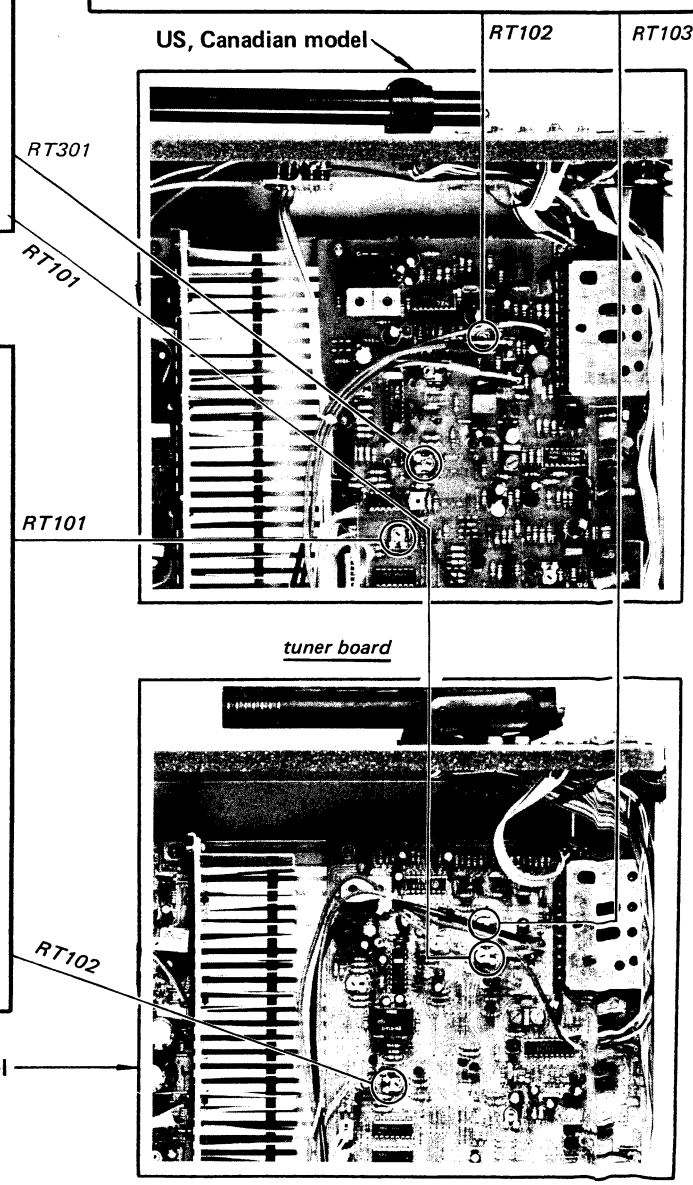
Procedure:
1. Tune the set to 98MHz.
2. Turn RT102 (US, Canadian model) or RT103 (E model) until the VTVM reading drops to 0V.

FM TUNING LEVEL ADJUSTMENT

Setting: TUNING LEVEL switch: HIGH



Procedure:
Tune the set to 98MHz.
By varying the output level of the FM signal generator from 360μV (51dB) to 880μV (59dB), adjust RT101 (US, Canadian model) or RT102 (E model) so that the frequency scanning stops (observing the frequency counter of the set).

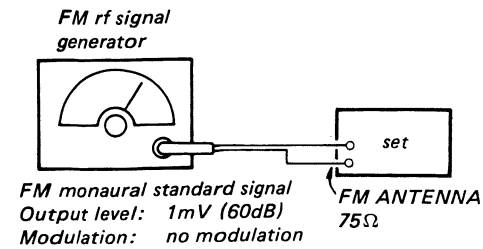


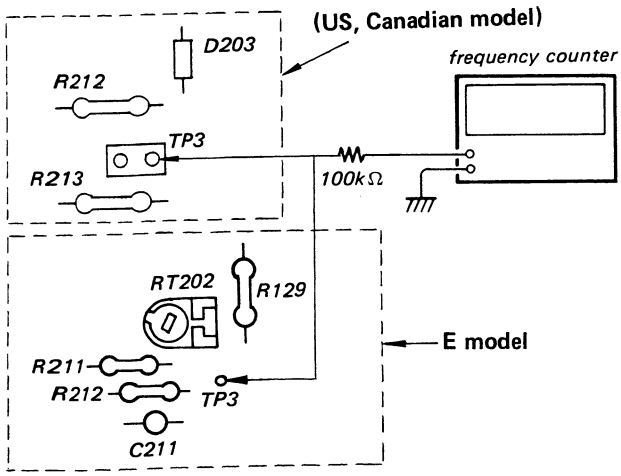
VCO ADJUSTMENT

Setting:

FUNCTION switch: TUNER
FM/AM switch: FM
MODE switch: MONO

A) Regular Method





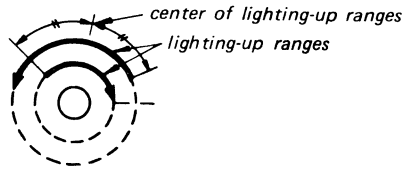
Procedure:

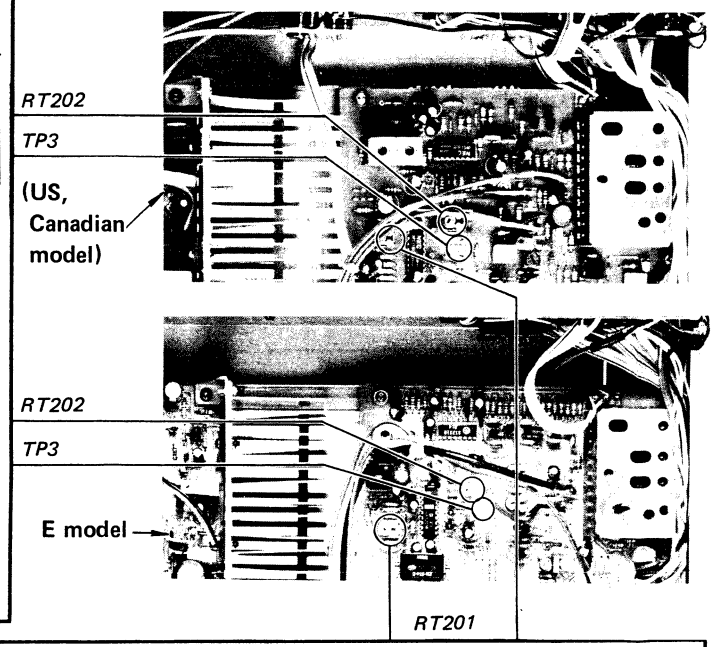
1. Tune the set to 98MHz.
2. Adjust RT202 for 76kHz ±100Hz reading on the frequency counter.

B) Simple Method

Procedure:

1. Tune the set to the FM stereo broadcasting signal.
2. Turn RT202 clockwise or counterclockwise and memorize the lighting-up ranges of STEREO lamp.
3. Secure RT202 at the center of the lighting-up range of both turns as shown below.

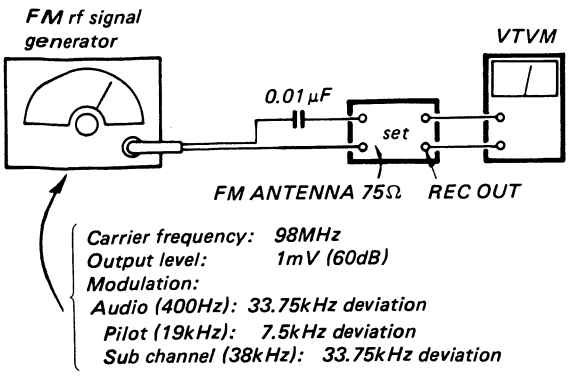




FM STEREO SEPARATION ADJUSTMENT

Setting:

FUNCTION switch: TUNER
FM/AM switch: FM
MODE switch: STEREO/FM-AM MUTING



Procedure:

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RT201 resistor for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RT201 resistor for minimum reading.

L-CH Stereo Separation: Ⓐ − Ⓑ
R-CH Stereo Separation: Ⓒ − Ⓓ

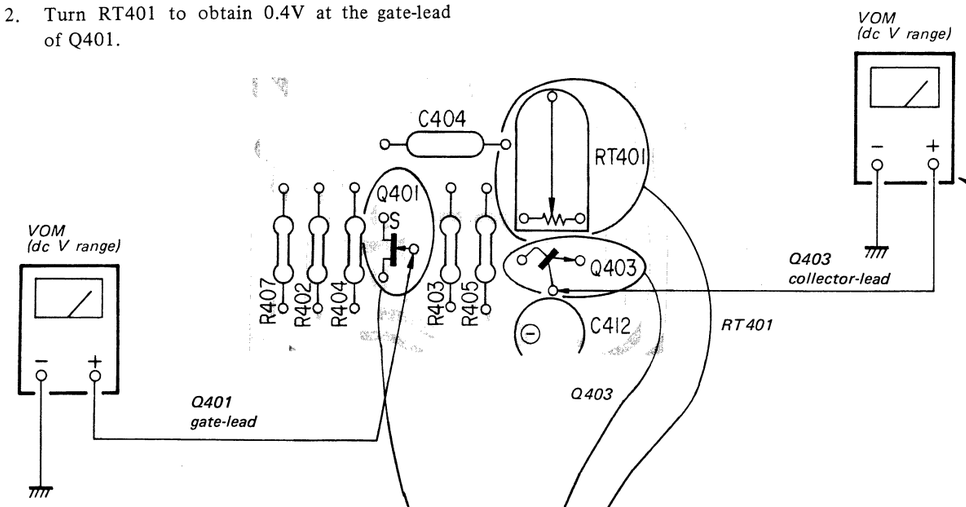
At 400Hz: more than 32dB, At 1kHz: more than 38dB.
The separations of both channels should be equal.

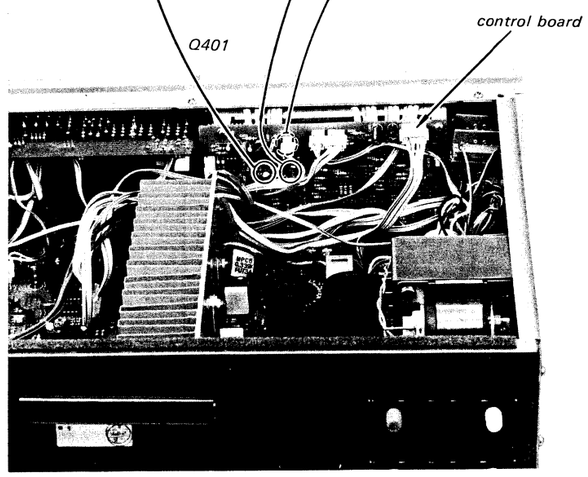
US, Canadian model

PLL AJUSTMENT

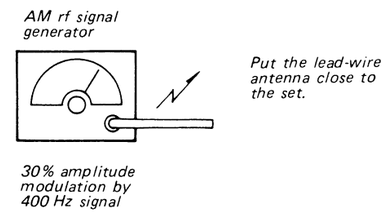
Procedure:

1. Tune the set to 98 MHz.
2. Turn RT401 to obtain 0.4V at the gate-lead of Q401.

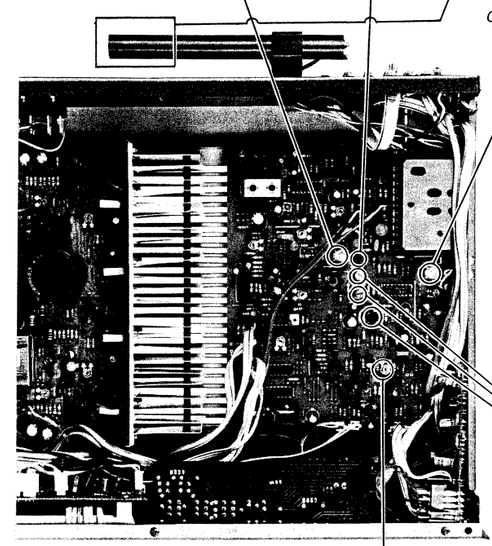




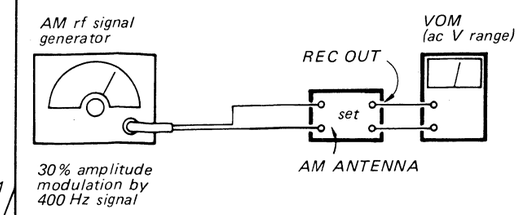
3-3. AM SECTION



AM FREQUENCY COVERAGE ADJUSTMENT (9/10 kHz step)		
Frequency Counter Indication	1,602/1,610 kHz	522/530 kHz
Q403 Collector Voltage	25 V	1 V
Adjust	CT302	L303



AM TRACKING ADJUSTMENT



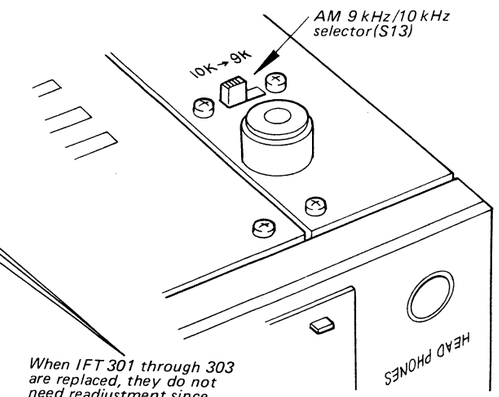
Output level: 30–100 μV (30–40 dB)
Carrier frequency: 603/600, 1,395/1,400 kHz (9/10 kHz step)

Procedure:

Tune the set to the frequency of AM rf signal generator and adjust L1 and CT301 for maximum reading on the VOM.

	AM Rf Signal Generator Frequency	Adjust	VOM Reading
1	603/600 kHz	Core of L1	maximum
2	1,395/1,400 kHz	CT301	

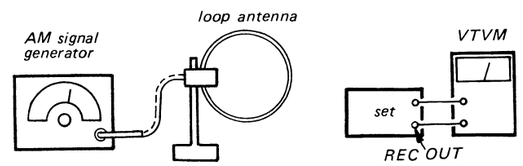
Note: Repeat the above adjustment several times ending with CT301.



When IFT 301 through 303 are replaced, they do not need readjustment since they have been factory-adjusted.

AM MUTING LEVEL ADJUSTMENT

Setting: TUNING LEVEL-ON switch: ON



Carrier frequency: 1,000 kHz
Output level: 0.02 V (86 dB)
Modulation: 400 Hz, 30%

Procedure:

1. Place the loop antenna at a distance of 60 cm (23⅝") away from the ferrite-rod antenna in the set.
2. Turn RT 302 until the VTVM indication drops to 0 V with the output level of AM signal genelator of 86 ± 4 dB.

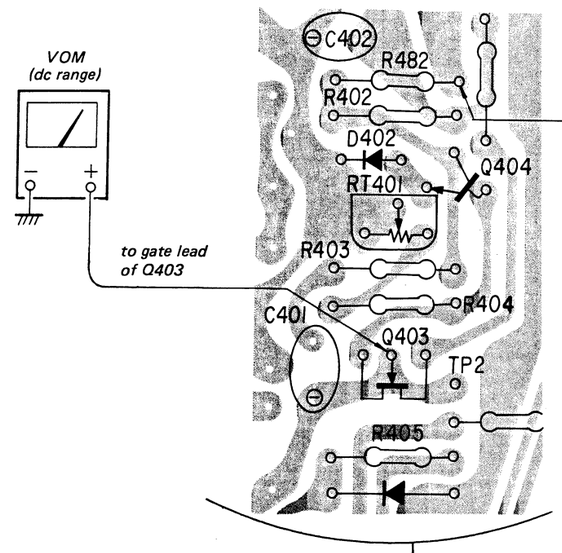
E model

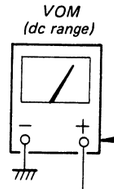
PLL ADJUSTMENT

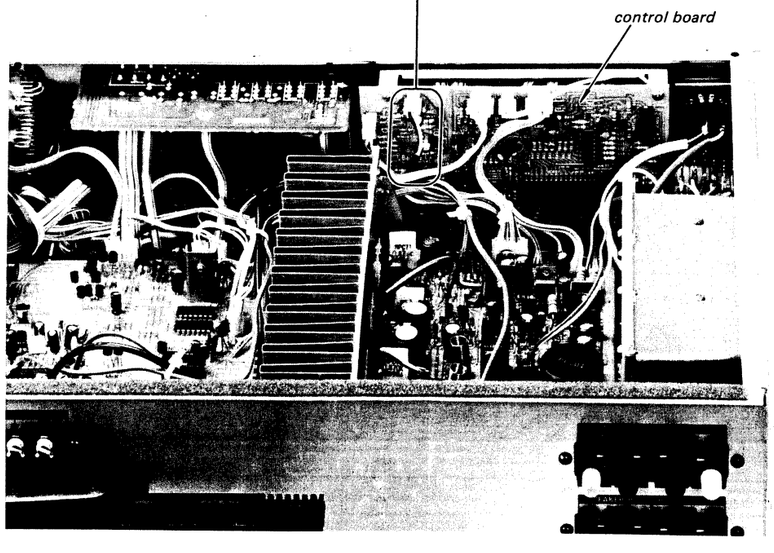
Setting: FM/AM switch: FM

Procedure:

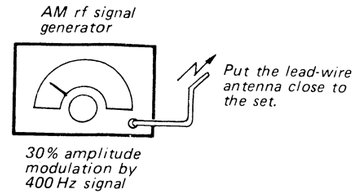
1. Tune the set to 87.5 MHz and receive a 87.5 MHz signal from f-m signal generator.
2. Set RT401 to its clockwise stop.
3. Turn RT401 counterclockwise to obtain 1.8V dc at the gate lead of Q403.







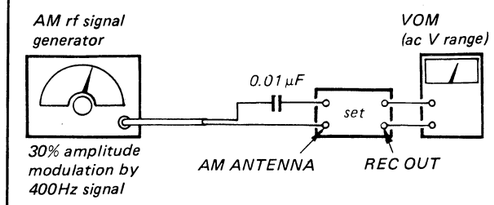
3-3. AM SECTION



Set S16 to "9kHz" side.

AM FREQUENCY COVERAGE ADJUSTMENT		
Frequency Counter Indication	1602kHz	522kHz
VOM reading	22V	1.5V
Adjust	CT304	L303

AM TRACKING ADJUSTMENT



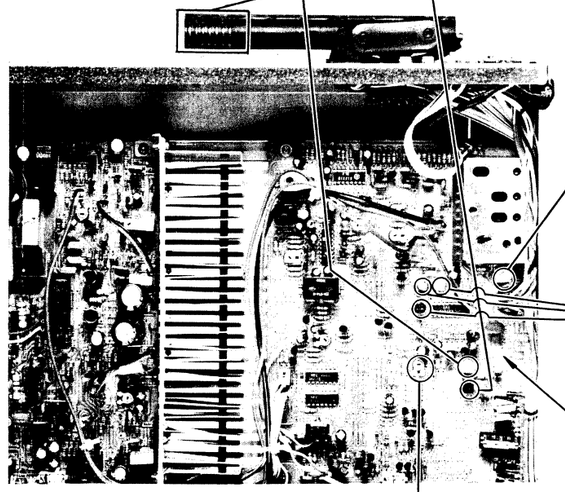
Output level: 30–100μV (30–40dB)
Carrier frequency: 603, 1404kHz

Procedure:

Tune the set to the frequency of AM rf signal generator and adjust L001 and CT302 for maximum reading on the VOM.

	AM Rf Signal Generator Frequency	Adjust	VOM Reading
1	603kHz	Core of L001	maximum
2	1404kHz	CT302	

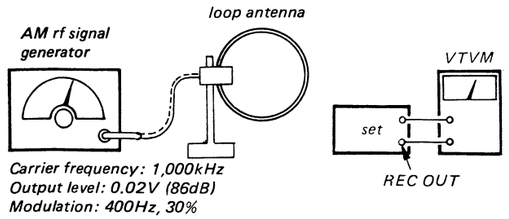
Note: Repeat the above adjustment several times ending with CT302.



Note:
When IFT301 through 303 are replaced, they do not need readjustment since they have been factory adjusted.

AM TUNING LEVEL ADJUSTMENT

Setting: TUNING LEVEL–LOW switch: ON

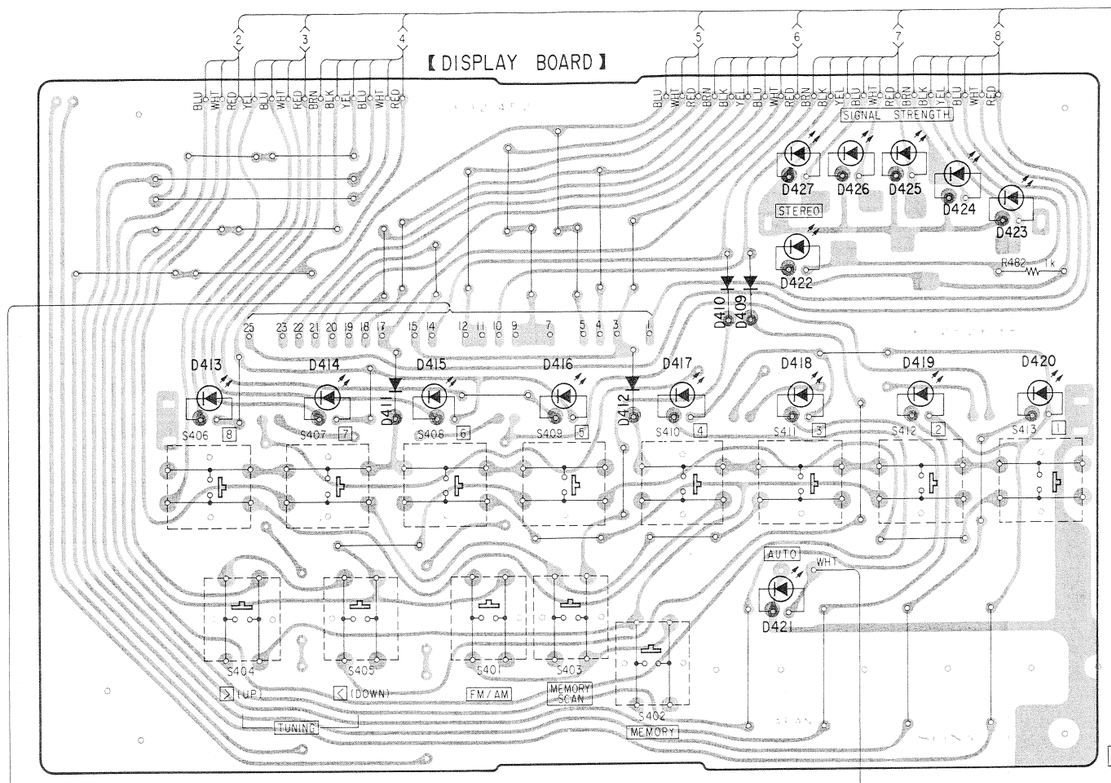


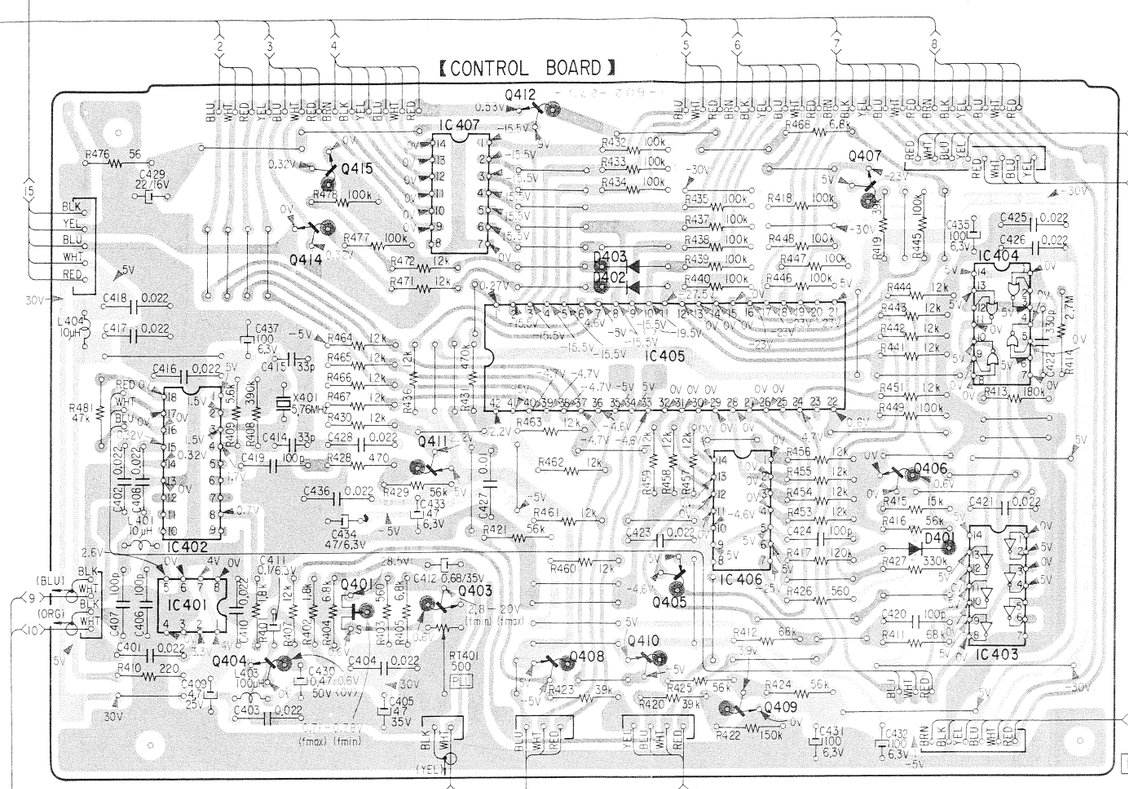
Procedure:

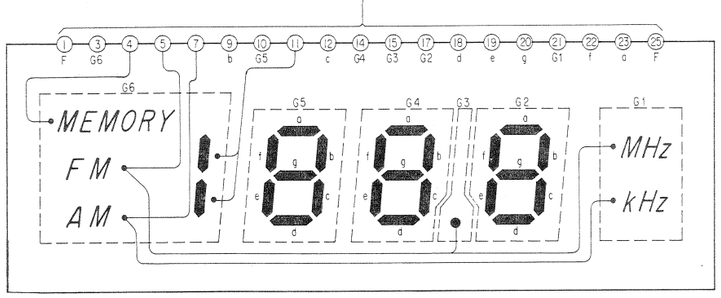
1. Place the loop antenna at a distance of 60cm ($23^5/_8$") away from the ferrite-rod antenna in the set.
2. Turn RT301 until the VTVM reading drops to 0V with the output level of AM signal generator of 86 ±4dB.

4-1. MOUNTING DIAGRAMS – Tuner Section (US, Canadian model) –

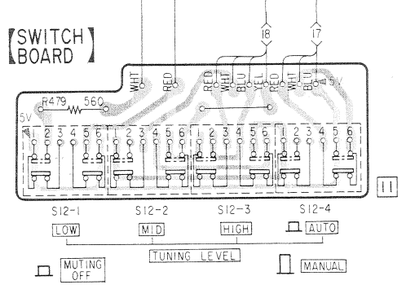
– Conductor Side –

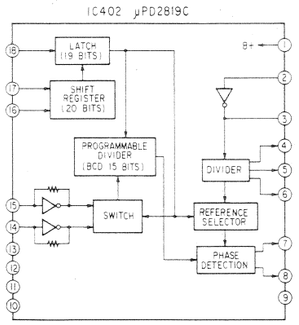


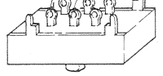


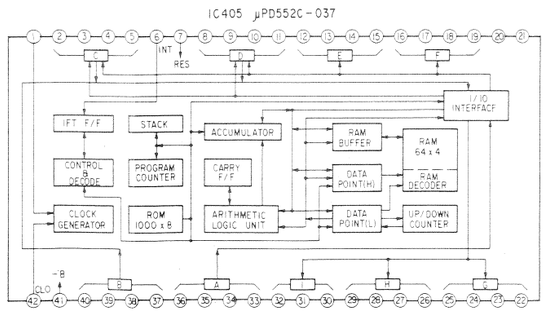


FLD401 FLUORESCENT DISPLAY TUBE

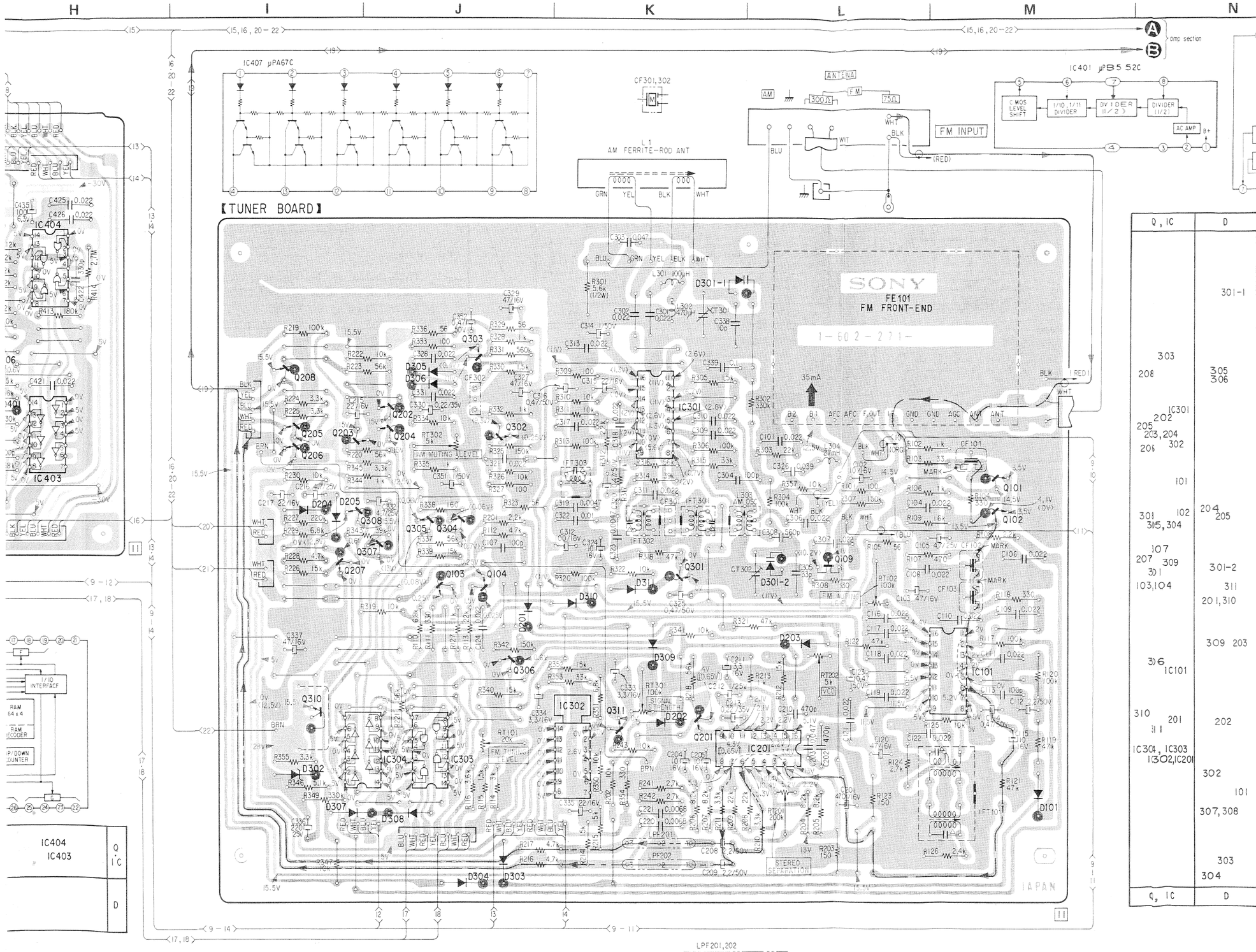








Q·IC	IC402 IC401 404 415 414 401 411 IC407 403 412 408 IC405 410 405 IC406 409 407 406 IC404 IC403
D	413 414 411 415 416 412 417 410 409 427 422 418 421 426 425 419 424 423 420 403 402 401

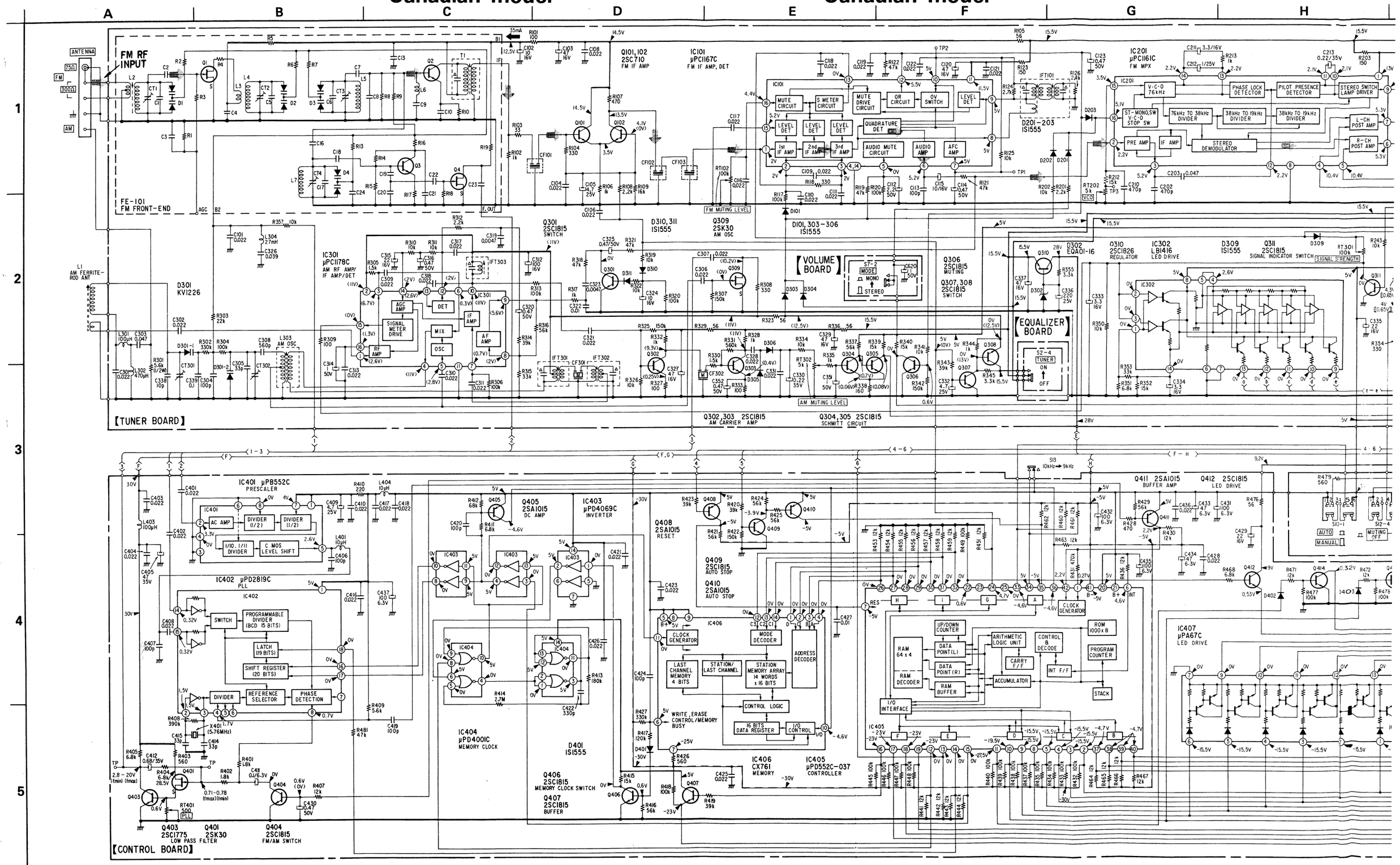

H
I
J
K
L
M
N
IC407 μPA67C
CF301,302
L1
AM FERRITE-ROD ANT
ANTENA
FM INPUT
IC401 μPB552C
amp section
【TUNER BOARD】
SONY
FE101
FM FRONT-END
1-602-271-
IC404
IC403
IC301
IC302
IC303
IC304
IC201
IC101
IC404
IC403
Q
IC
D
LPF201,202
JAPAN

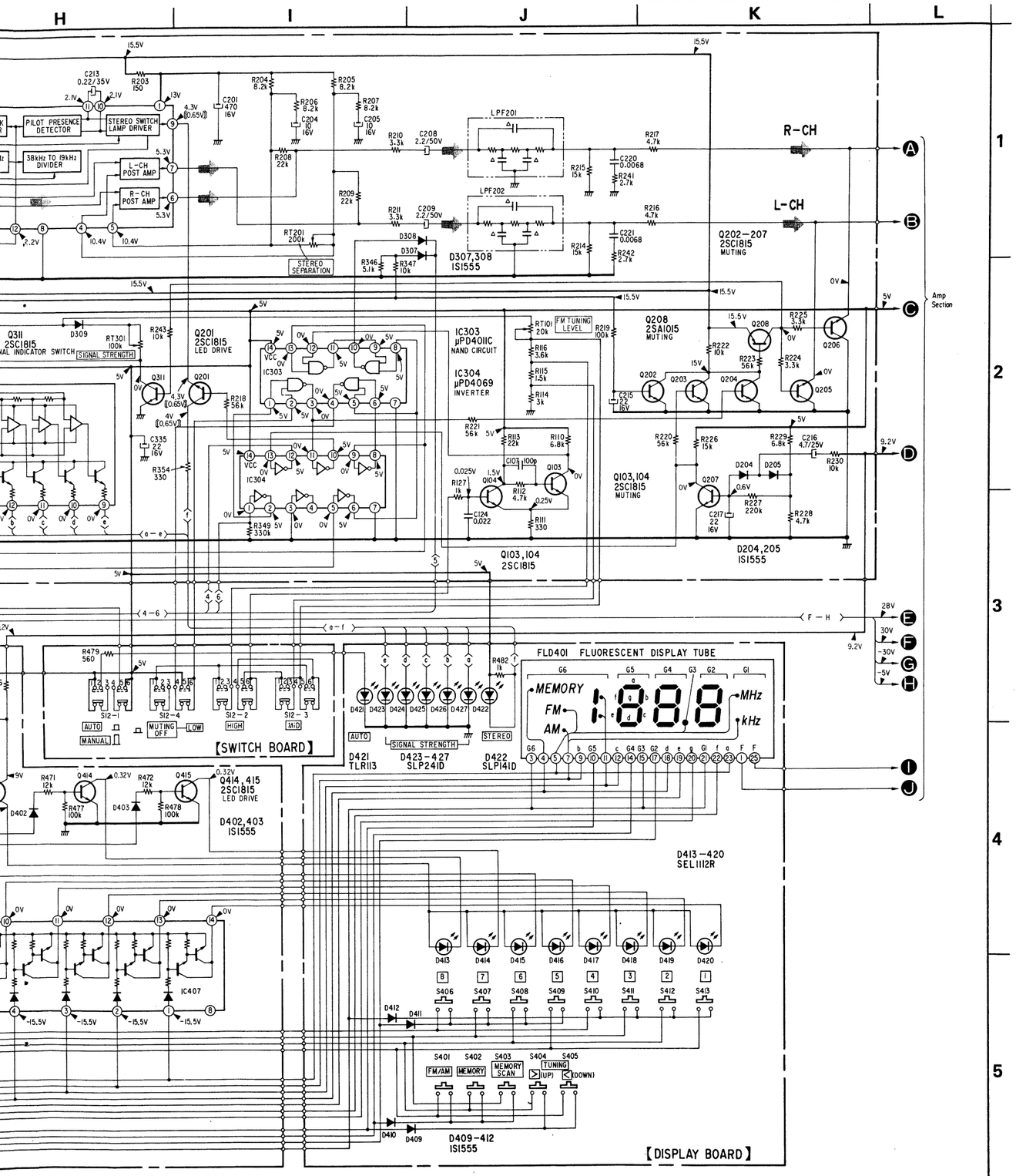
4-2. SCHEMATIC DIAGRAM
– Tuner Section (US, Canadian model) –

US model
Canadian model

STR-V45 STR-V45

US model
Canadian model





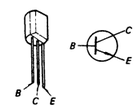
Note:

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼W unless otherwise noted. kΩ : 1000Ω, MΩ : 1000kΩ
- △ : internal component.
- ▭ : panel designation.
- ▭ : adjustment for repair.
- ——: B+ bus.
- – – –: B- bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- Readings are taken under no-signal (detuned) conditions with a VOM (20kΩ/V).

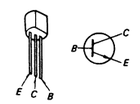
[[ ]]: FM STEREO
〈 〉: AM
no mark: FM

Semiconductor Lead Layouts:

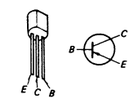
Q101, 102: 2SC710



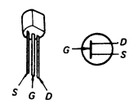
Q103, 104
Q201–207
Q301–308
Q311, 404
Q406, 407
Q409, 412
Q414, 415 : **2SC1364**



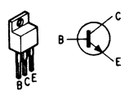
Q208
Q405, 408
Q410, 411 : **2SA1015**



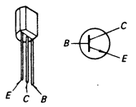
Q309, 401: 2SK30A



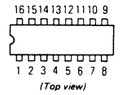
Q310: 2SC1986D



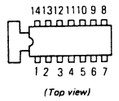
Q403: 2SC1775



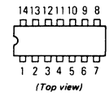
IC101: μPC1167C
IC201: μPC1161C
IC301: μPC1178C



IC302: LB1416

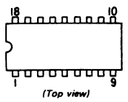


IC303: μPD4011C
IC304, 403: μPC4069C
IC404: μPD4001C

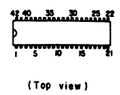


IC401: μPB552C

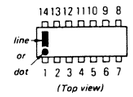
IC402: μPC2819C



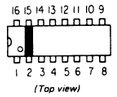
IC405: μPD552C037



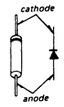
IC406: CX761A



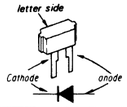
IC407: μPA67C



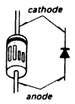
D101
D201–205
D303–311
D401–403
D409–412 : **1S1555**



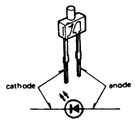
D301: KV1226



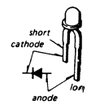
D302: EQB01-16



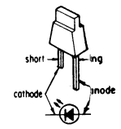
D413–420: SEL1112R



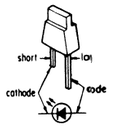
D421: TLR124



D422: SLP141B



D423–427: SLP241B



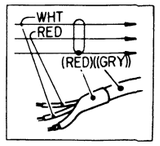
- Switch

Ref. No.	Switch	Position
S2	FUNCTION TUNER	OFF
S7	MODE	STEREO
S12	TUNING LEVEL	MANUAL
S13	AM 9kHz/10kHz	10kHz
S401	FM/AM	FM
S402	MEMORY	OFF
S403	MEMORY SCAN	OFF
S404	TUNING (UP)	OFF
S405	TUNING (DOWN)	OFF
S406–413	preset (1–8)	OFF

- ➡ : **signal path**

Note:

- Color code of sleeing over the end of the jacket.



- ⊡ : indicates sie identified with part nmber.
- ▒ : B + patter
- ▬▶▬ : signapath
- ▬▶▬ : L-CH signal path
- ▬▶▬ : R-CH signal path

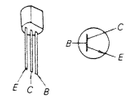
4-3. MOUNTING DIAGRAM

– Conductor Side –

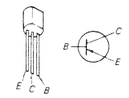
– Amp Section (US, Canadian model) –

Semicondutor Lead Layouts:

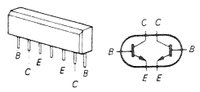
Q601: 2SD667A
Q708, 712, Q713, Q714–716, Q758: 2SC1364
Q805: 2SC1475



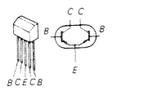
Q602: 2SB647A
Q806: 2SA684



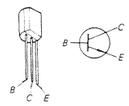
Q701, 751: 2SC2725



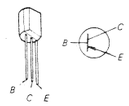
Q702, 752: 2SA979



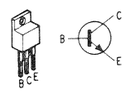
Q703, 753: 2SC1914A
Q704, 754: 2SC1735



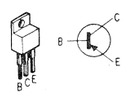
Q705, 755: 2SA850



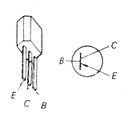
Q706, 756: 2SC1986D



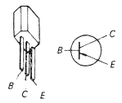
Q707, 757: 2SA771



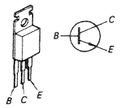
Q709, 759: 2SA1027R



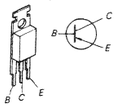
Q710, 711, Q760, 761: 2SA1049



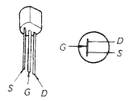
Q801: 2SC1173



Q802: 2SA473

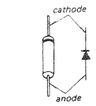


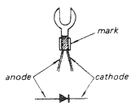
Q803, 804: 2SK30A



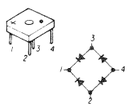
IC501, 551: M5214L

D701, 751, D703–705, D753, 754, D802–805, D807, 808, D813: 1S1555
D702, 752: SV04S

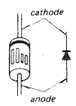


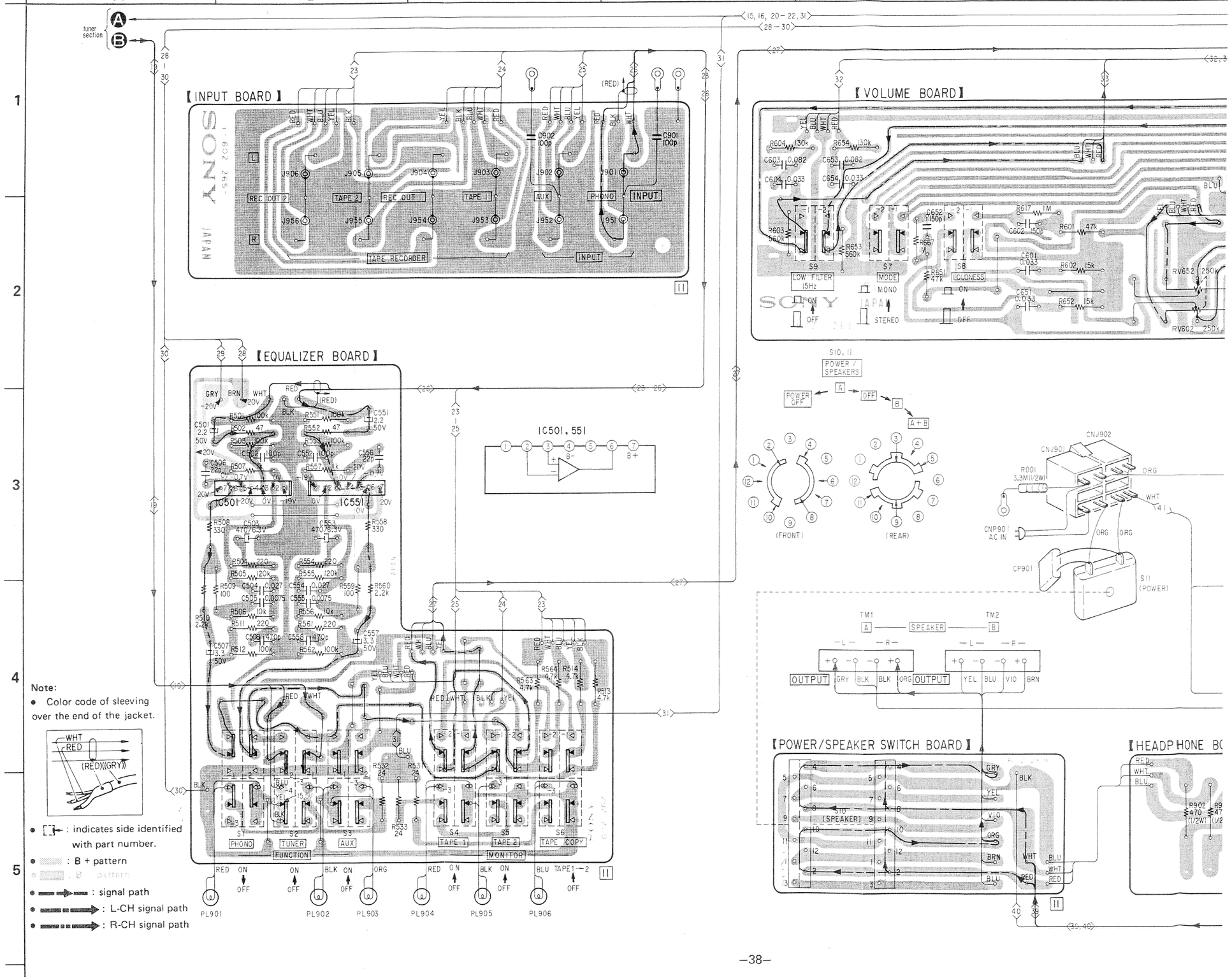


D801: S4VB40



D806: EQB01-05
D809, 810: EQB01-30
D811, 812: EQB01-06

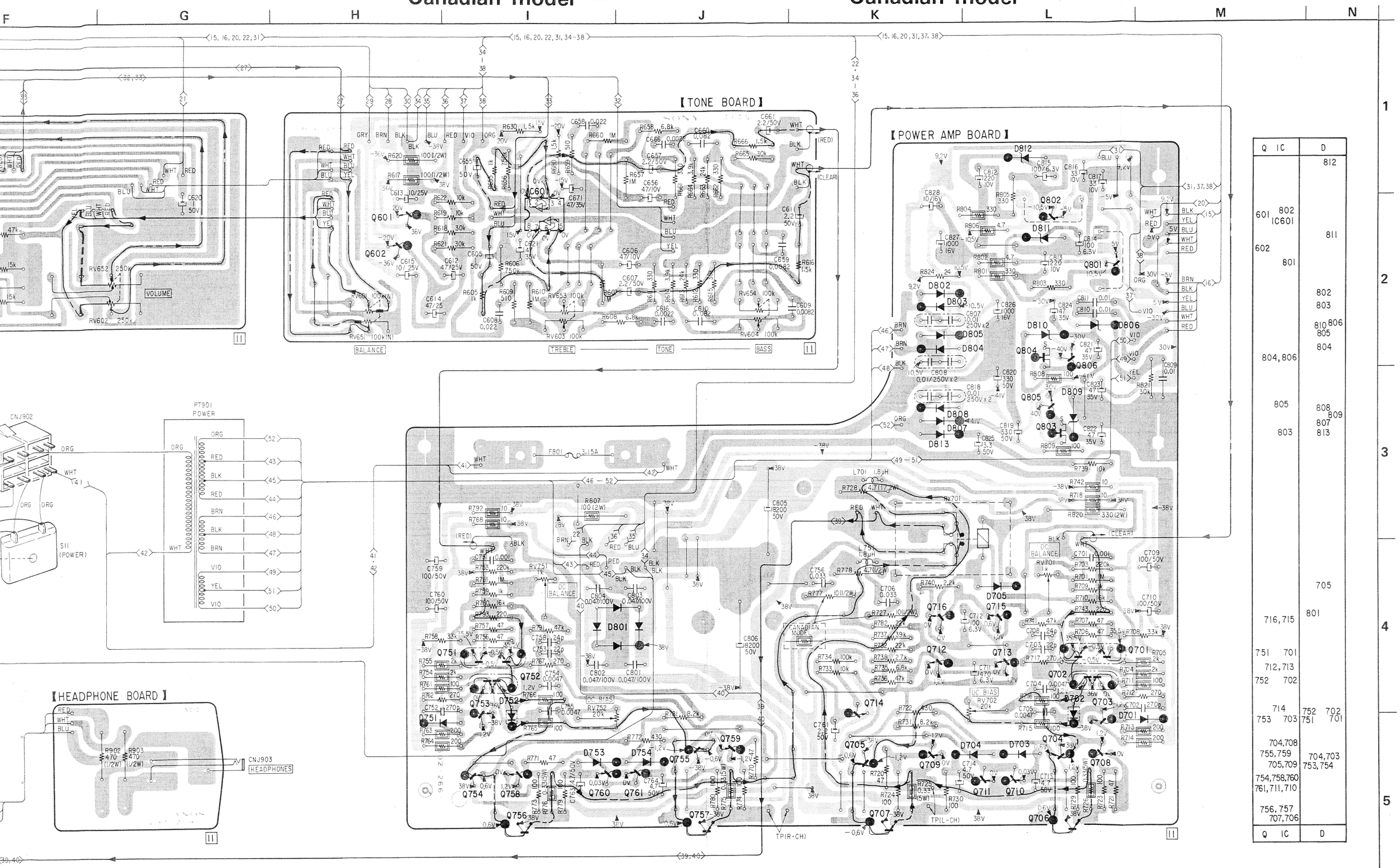




Note:

- Color code of sleeving over the end of the jacket.

- : indicates side identified with part number.
- : B + pattern
- : B – pattern
- : signal path
- : L-CH signal path
- : R-CH signal path



Q	IC	D
		812
601	802 IC601	
		811
602		
	801	
		802
		803
		810 806
		805
		804
804,806		
805		808
		809
		807
803		813
		705
716,715		801
751 701		
712,713		
752 702		
714		752 702
753 703		751 701
704,708		
755,759		704,703
705,709		753,754
754,758,760		
761,711,710		
756,757		
707,706		
Q	IC	D

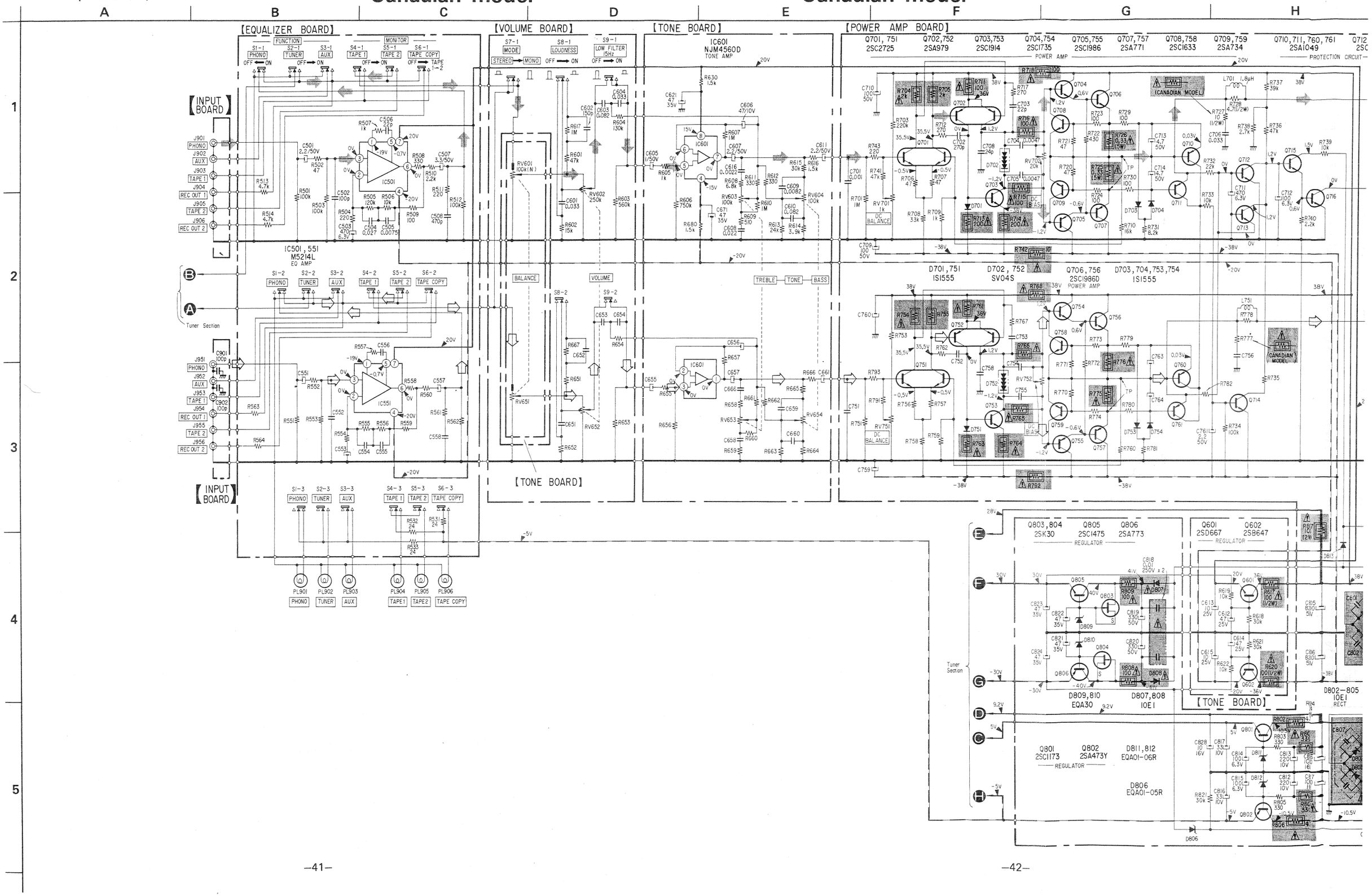
4-4. SCHEMATIC DIAGRAM

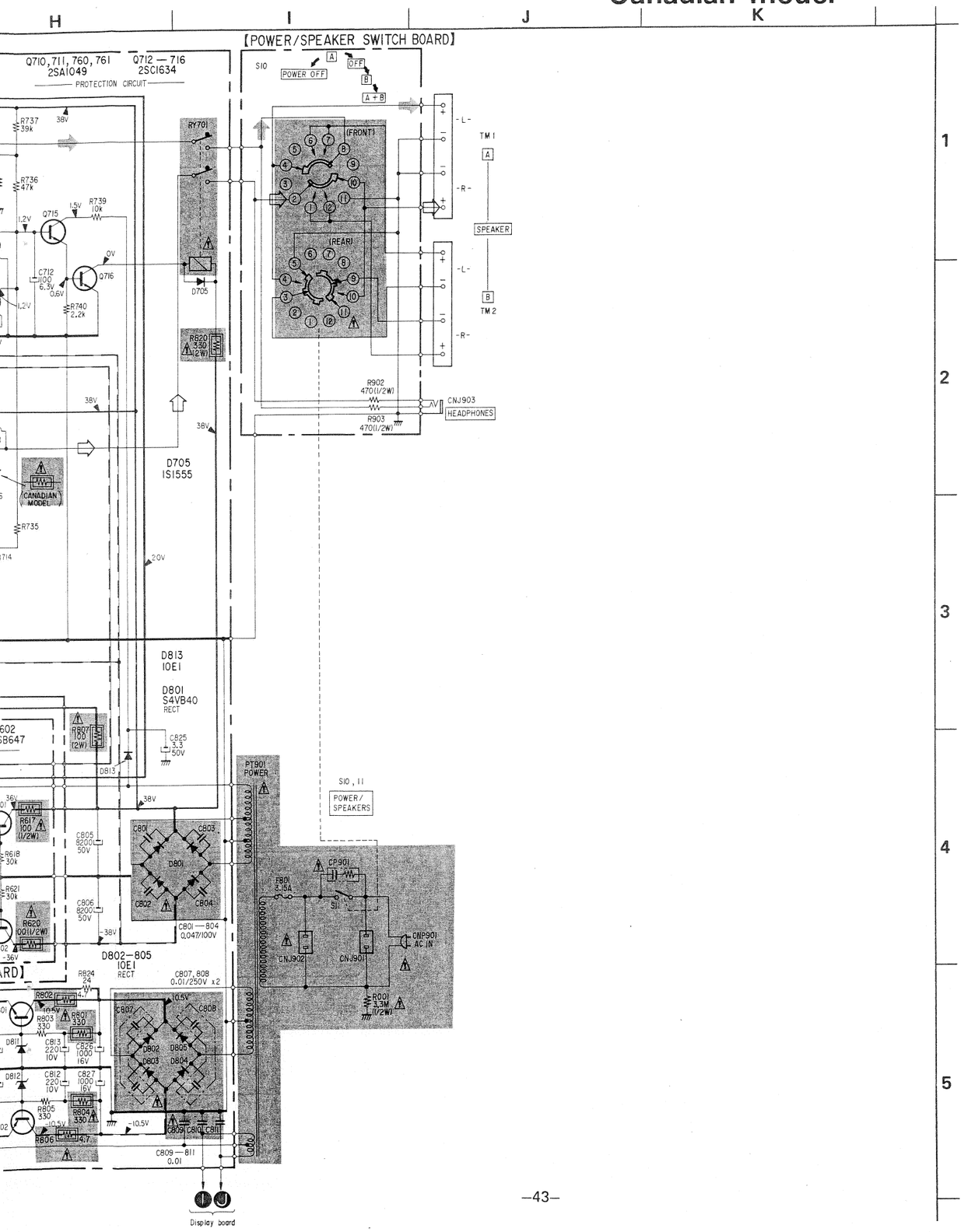
– Amp Section (US, Canadian model) –

US model
Canadian model

STR-V45 STR-V45

US model
Canadian model





Note:

- Components for right channel have same values as for left channel. Reference numbers are 50 higher than left channel.
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼W unless otherwise noted.
- : nonflammable resistor.
- : panel designation.
- : adjustment for repair.
- ——: B+ bus.
- – – –: B– bus.
- Readings are taken under no-signal (detuned) condition in FM mode with a VOM (20 kΩ/V).
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- Switch

Ref. No.	Switch	Position
S1	FUNCTION PHONO	ON
S2	FUNCTION TUNER	OFF
S3	FUNCTION AUX	OFF
S4	MONITOR TAPE 1	OFF
S5	MONITOR TAPE 2	OFF
S6	TAPE COPY 1—2	OFF
S7	MODE	STEREO
S8	LOUDNESS	OFF
S9	LOW FILTER	OFF
S10	SPEAKERS	A
S11	POWER	OFF

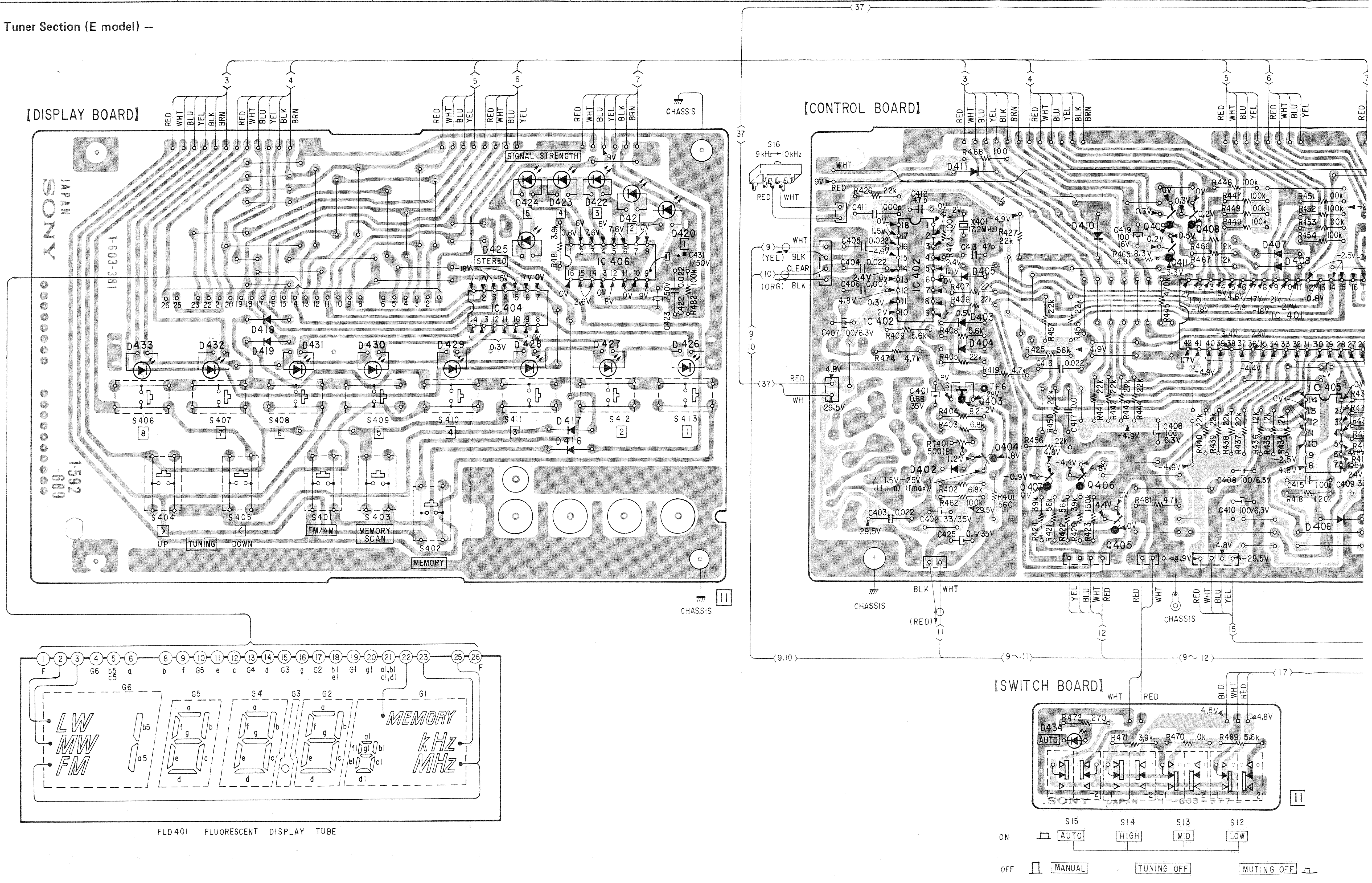
- , : signal path

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

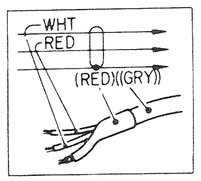
4-5. MOUNTING DIAGRAM — Tuner Section (E model) —

— Conductor Side —



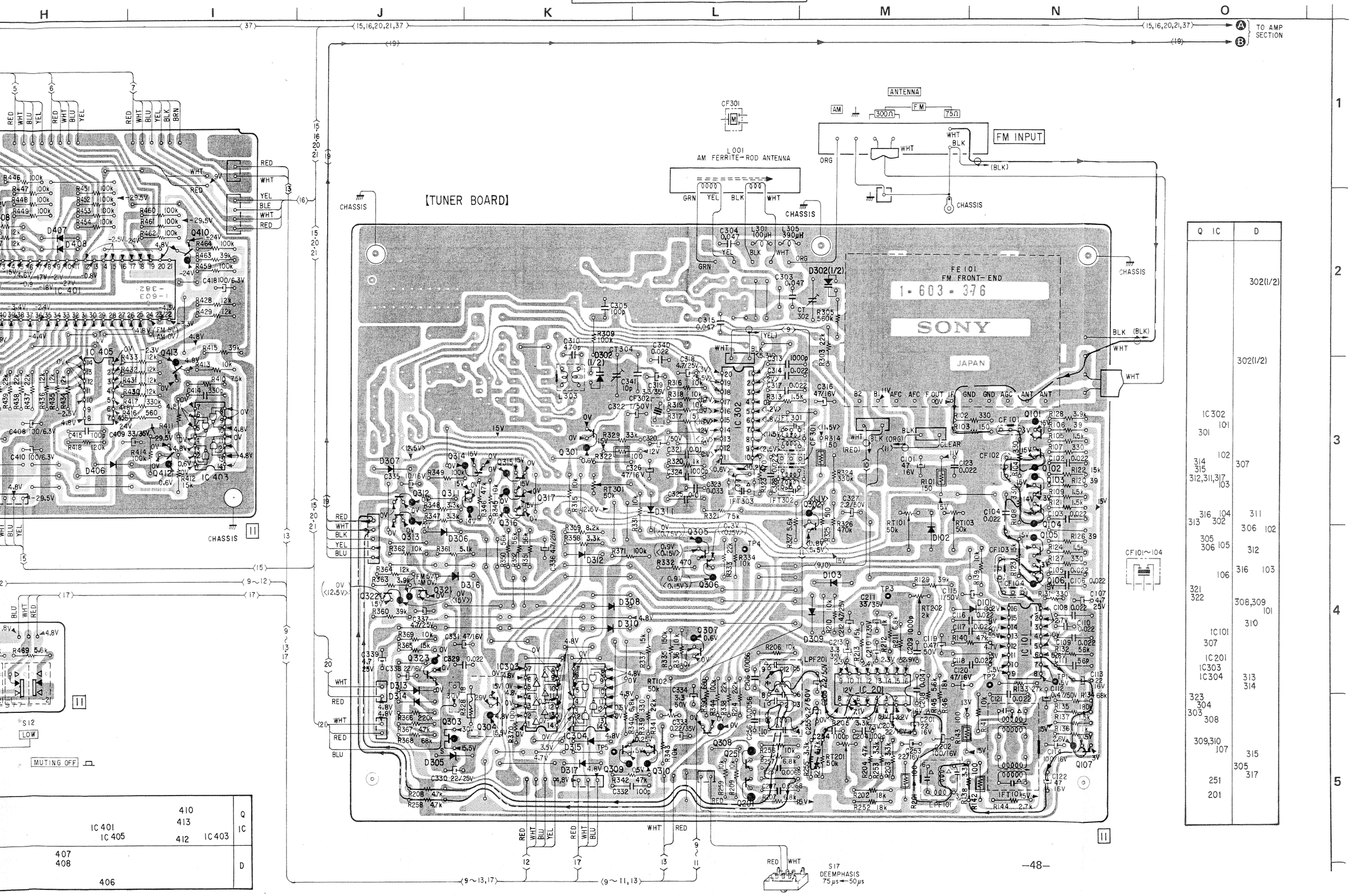
Note:

- Color code of sleeving over the end of the jacket.



- [ ]← : indicates side identified with part number.
- : B + pattern
- : B − pattern
- ▬▶▬ : signal path
- ▬▬▶ : L-CH signal path
- ▬▬▶ : R-CH signal path

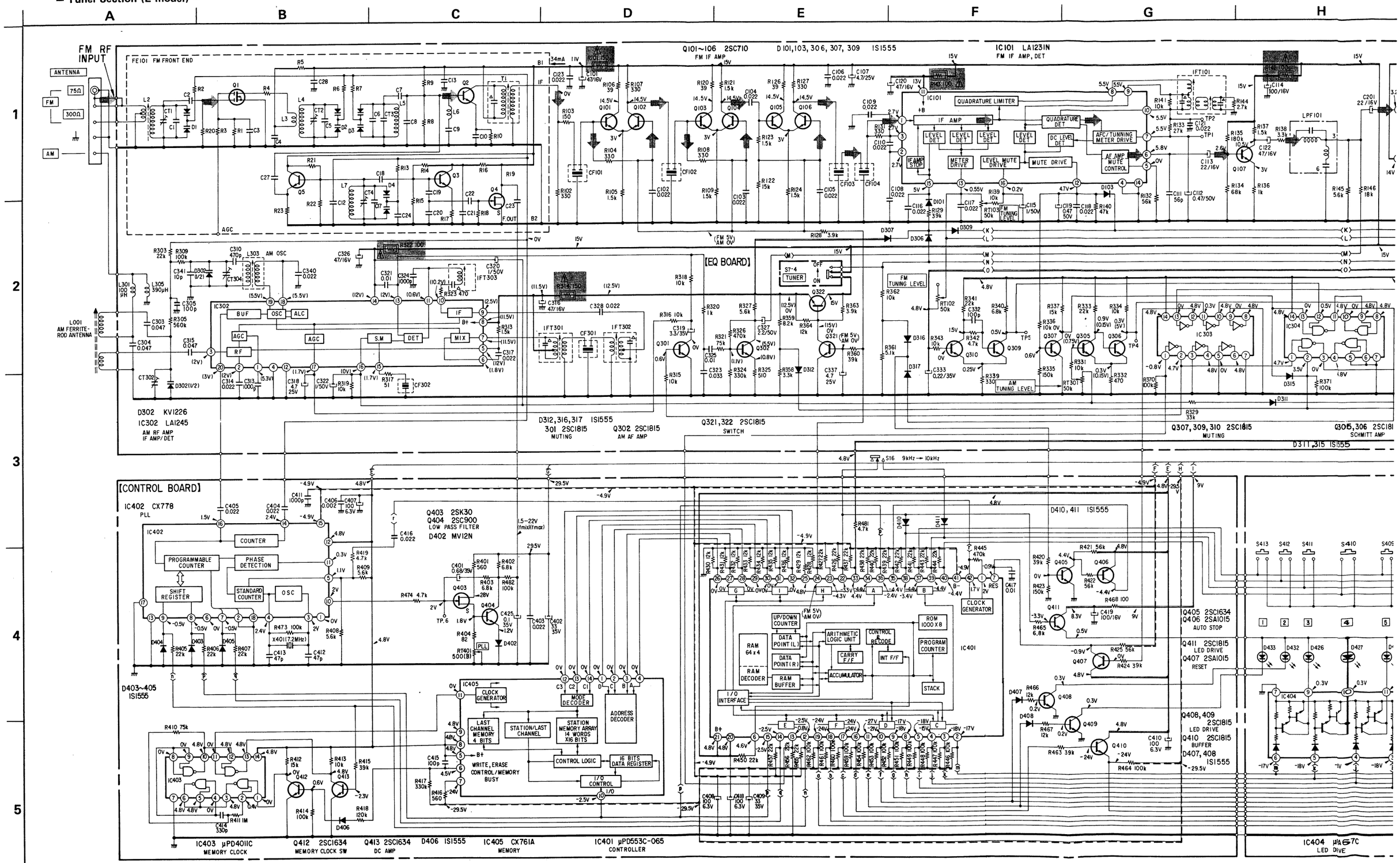
	B	C	D	E	F	G	H
Q / IC			IC404	IC406	IC402 403 404	407 406 405 409 411 408	IC401 IC405
D	433	432 418 419 431	430 429 424 425 428 423	424 421 420	411 405 403 404 402	412 413 410 434	407 408 406

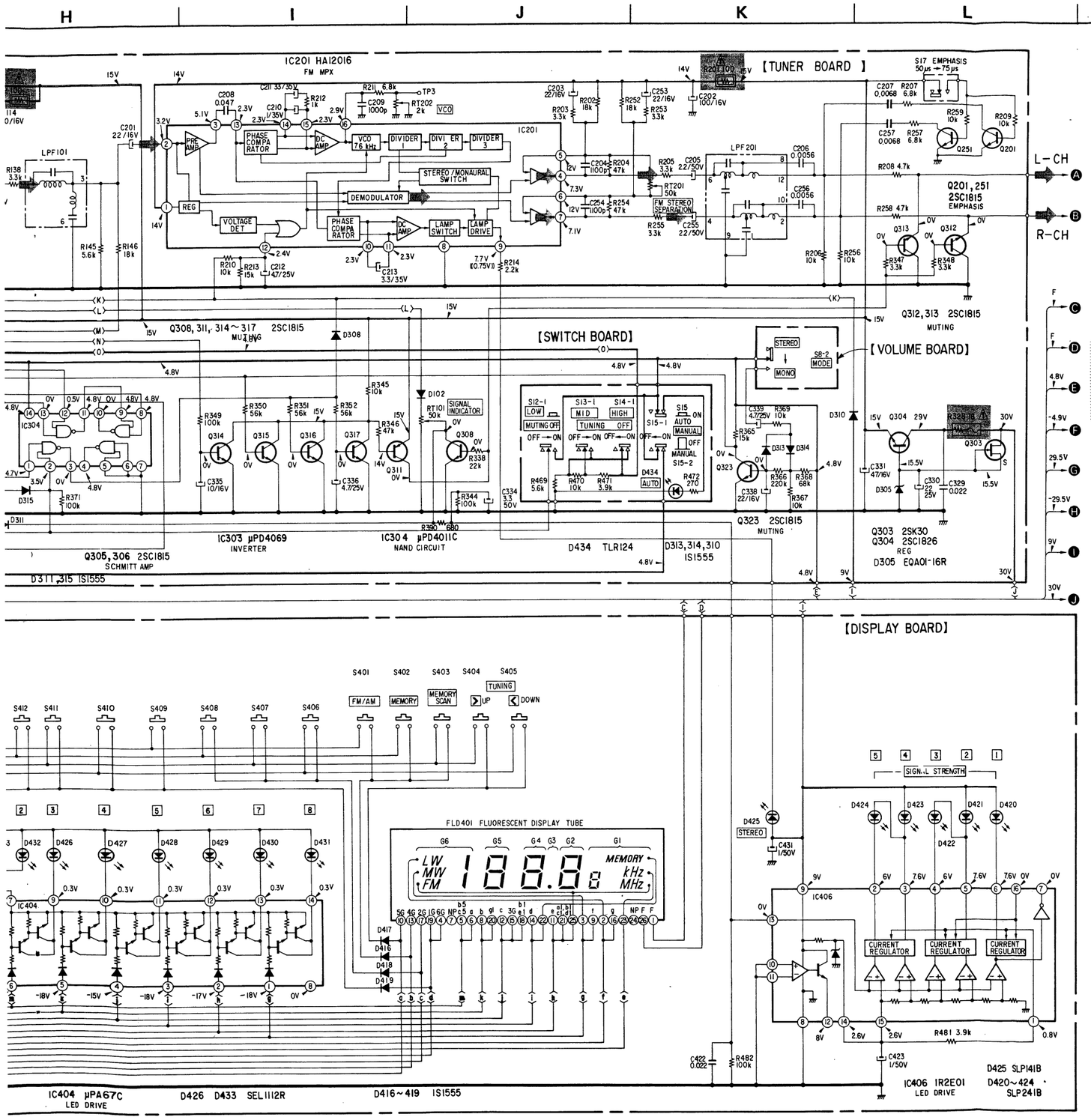


Q IC	D
	302(1/2)
	302(1/2)
IC 302 101 301	
102 314 315 312,311,317 103	307
316 104 313 302	311 306 102
305 306 105	312
106	316 103
321 322	308,309 101
	310
IC 101 307	
IC 201 IC 303 IC 304	313 314
323 304 303 308	
309,310 107	315 305 317
251	
201	

Q IC	D
410 413 IC 401 IC 405 412 IC 403	
407 408	
406	

4-6. SCHEMATIC DIAGRAM
– Tuner Section (E model) –





Note:

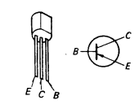
- All capacitors are in μF unless otherwise noted. pF : 50WV or less are not indicated except for electrol and tantalums.
- All resistors are in ohms, ¼W unless otherwise no kΩ : 1000Ω, MΩ : 1000 kΩ
- △ : internal component.
- ▭ : panel designation.
- ▭ : adjustment for repair.
- ——: B+ bus.
- – – –: B- bus.
- Voltages are dc with respect to ground unless othe noted.
- Readings are taken under no-signal (detuned) condi with a VOM (20 kΩ/V).

[[ ]] : FM STEREO
( ) : AM
no mark : FM

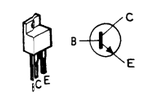
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Semiconductor Lead Layouts

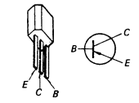
2SA1015



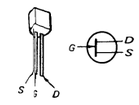
2SC1986



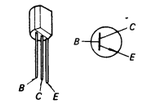
2SA1027R



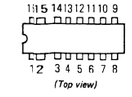
2SK30
2SK30A
2SK30A-GR3



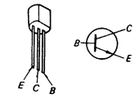
2SC710



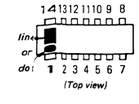
CA1231N
IR2E01
CA1231



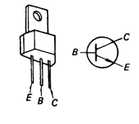
2SC900
2SC1362
2SC1364
2SC1634
2SC1815



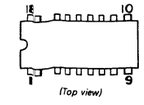
CX761A
NB84069B
μPD4069
μPD4011C

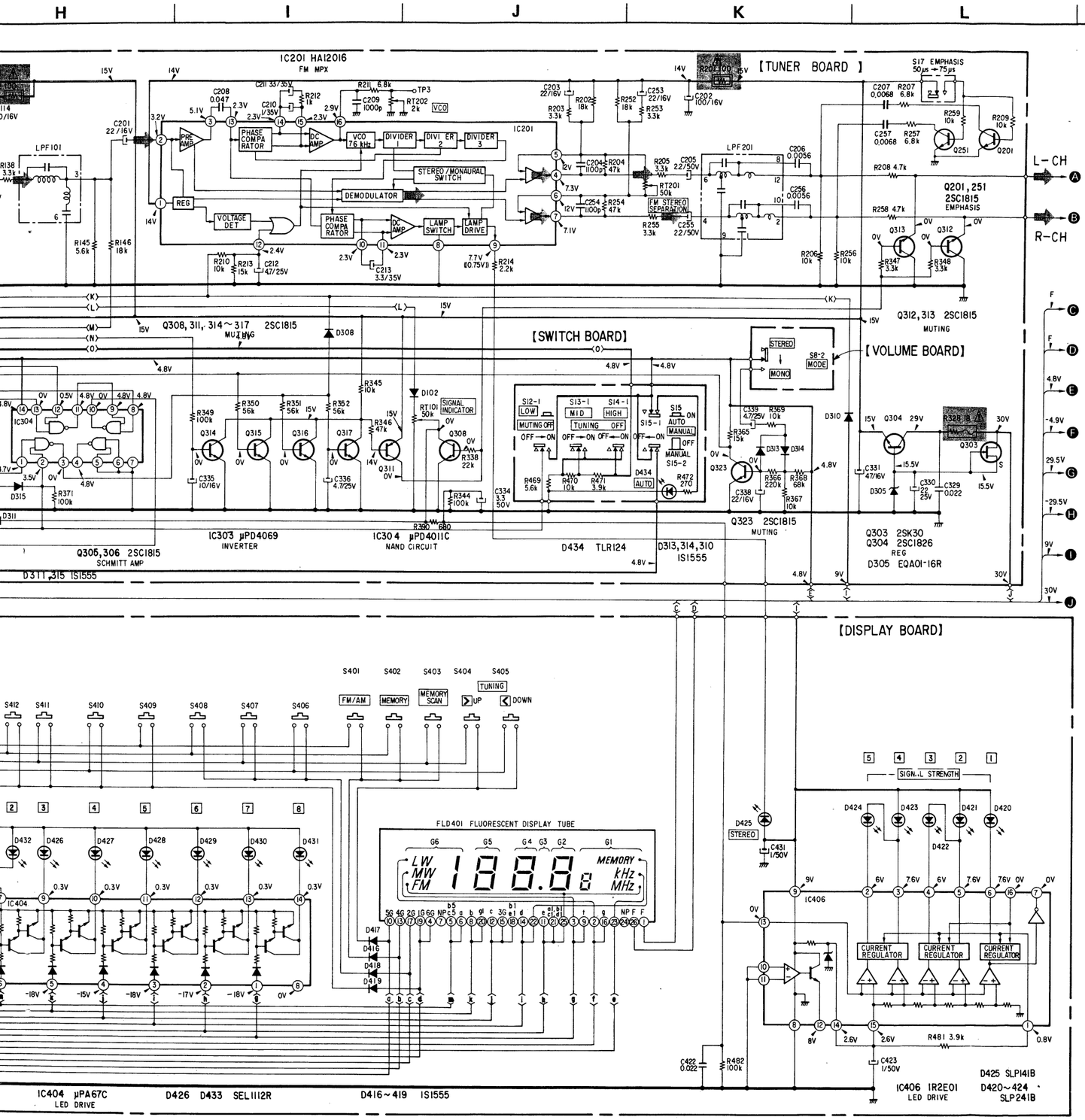


2SC1826



CX778





Note:

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, ¼W unless otherwise noted. kΩ : 1000Ω, MΩ : 1000kΩ
- △ : internal component.
- ▭ : panel designation.
- ▭ : adjustment for repair.
- ——: B+ bus.
- – – –: B- bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal (detuned) conditions with a VOM (20 kΩ/V).

  [[ ]] : FM STEREO
  ( ) : AM
  no mark : FM

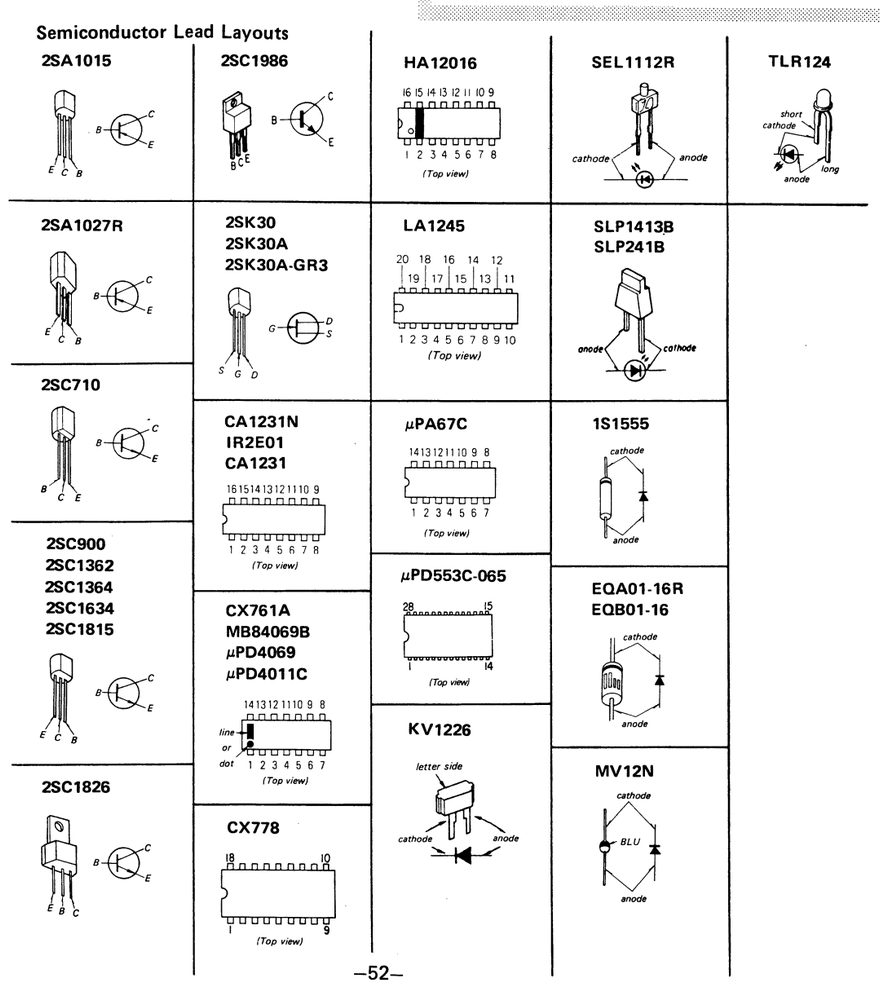
- Voltage variations may be noted due to normal production tolerances.
- ➡ : signal path
- Switch

Ref. No.	Switch	Position
S7	TUNER	ON
S12	MUTING OFF (LOW)	OFF
S13	TUNING OFF (MID)	OFF
S14	TUNING OFF (HIGH)	ON
S15	MANUAL	ON (AUTO)
S16	9kHz/10kHz	9kHz
S401	FM/AM	OFF
S402	MEMORY	OFF
S403	MEMORY SCAN	OFF
S404	TUNING (UP)	OFF
S405	TUNING (DOWN)	OFF
S406–413	Preset (1 – 8)	OFF

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

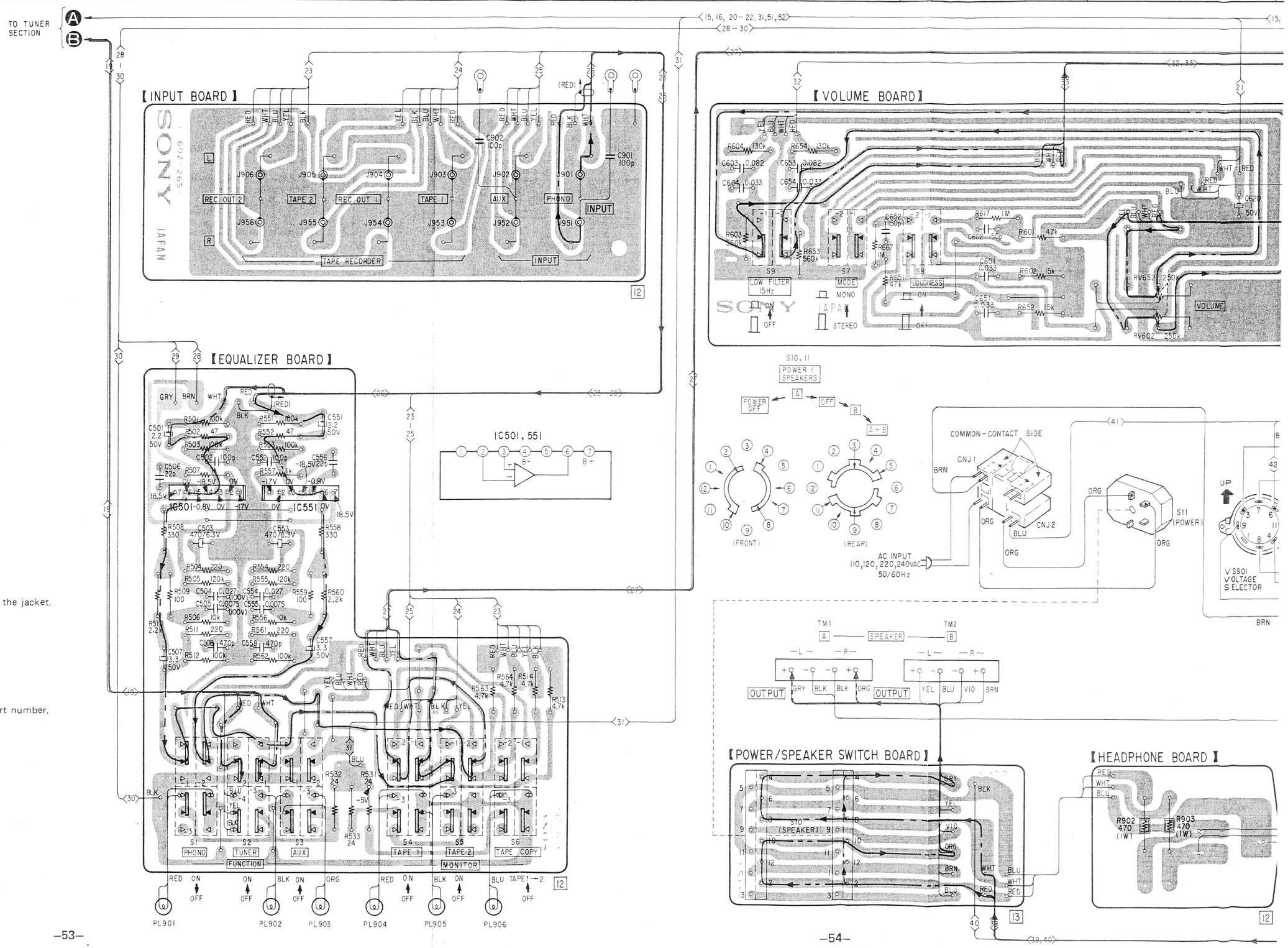
Semiconductor Lead Layouts



4-7. MOUNTING DIAGRAM

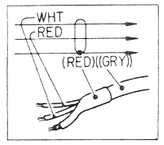
– Conductor Side –

– Amp Section (E model) –

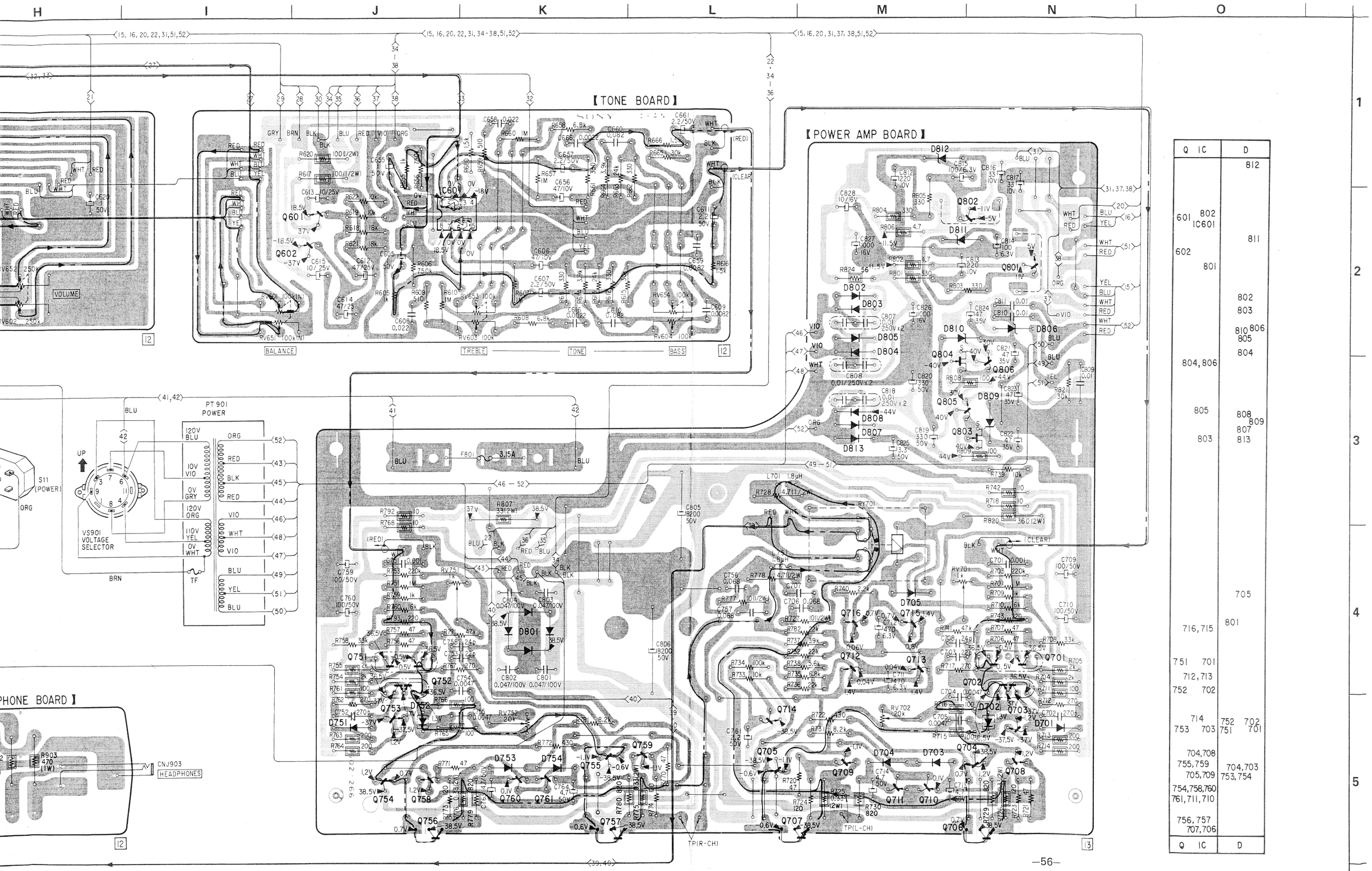


Note:

- Color code of sleeving over the end of the jacket.

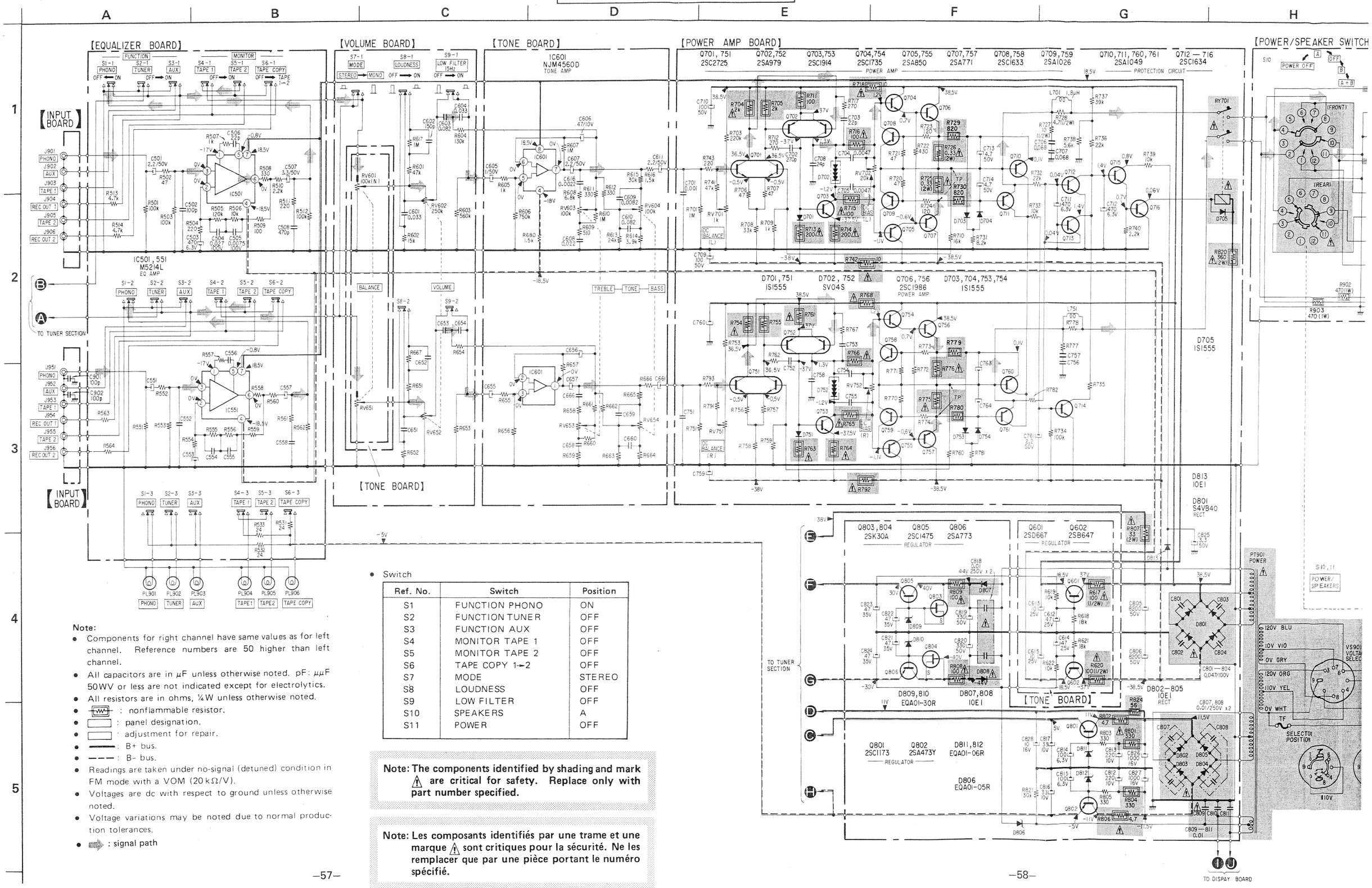


- : indicates side identified with part number.
- : B+ pattern
- : B pattern
- : signal path
- : L-CH signal path
- : R-CH signal path



Q IC	D
	812
601 802 IC601	
	811
602	
801	
	802
	803
	810 806 805
	804
804, 806	
805	808 809 807
803	813
	705
	801
716, 715	
751 701	
712, 713	
752 702	
714	752 702 751 701
753 703	
704, 708	
755, 759 705, 709	704, 703 753, 754
754, 758, 760 761, 711, 710	
756, 757 707, 706	
Q IC	D

4-8. SCHEMATIC DIAGRAM – Amp Section (E model) –



Note:

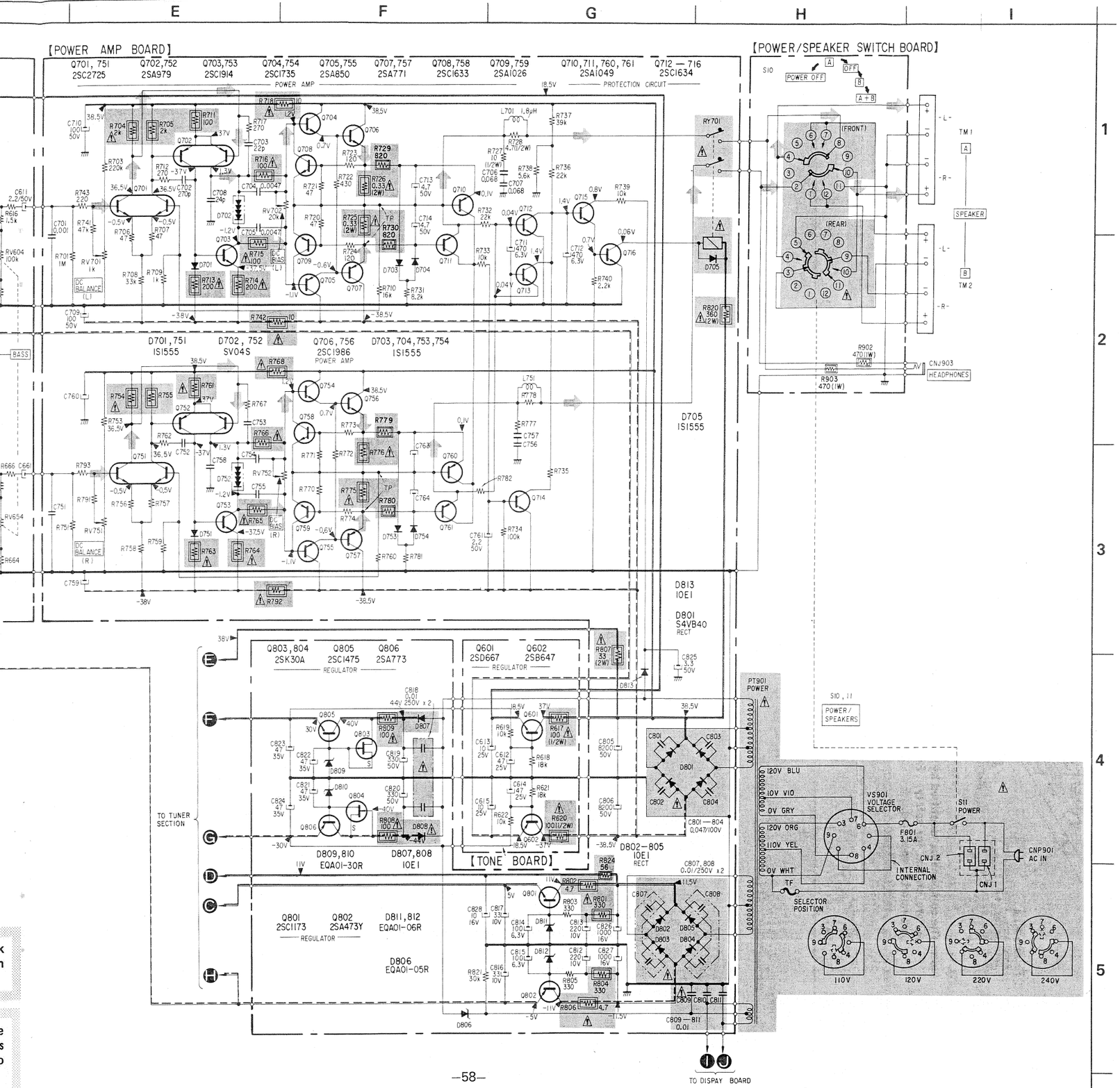
- Components for right channel have same values as for left channel. Reference numbers are 50 higher than left channel.
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼W unless otherwise noted.
- : nonflammable resistor.
- : panel designation.
- : adjustment for repair.
- ——: B+ bus.
- – – –: B- bus.
- Readings are taken under no-signal (detuned) condition in FM mode with a VOM (20 kΩ/V).
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- : signal path

- Switch

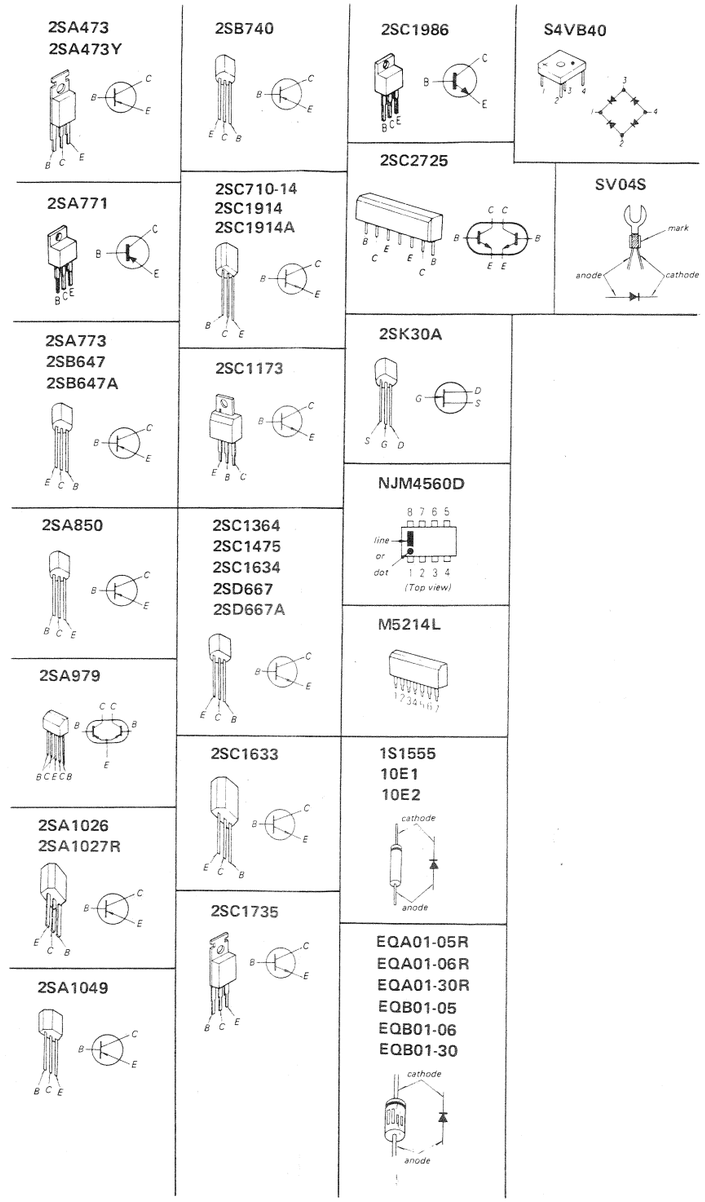
Ref. No.	Switch	Position
S1	FUNCTION PHONO	ON
S2	FUNCTION TUNER	OFF
S3	FUNCTION AUX	OFF
S4	MONITOR TAPE 1	OFF
S5	MONITOR TAPE 2	OFF
S6	TAPE COPY 1→2	OFF
S7	MODE	STEREO
S8	LOUDNESS	OFF
S9	LOW FILTER	OFF
S10	SPEAKERS	A
S11	POWER	OFF

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



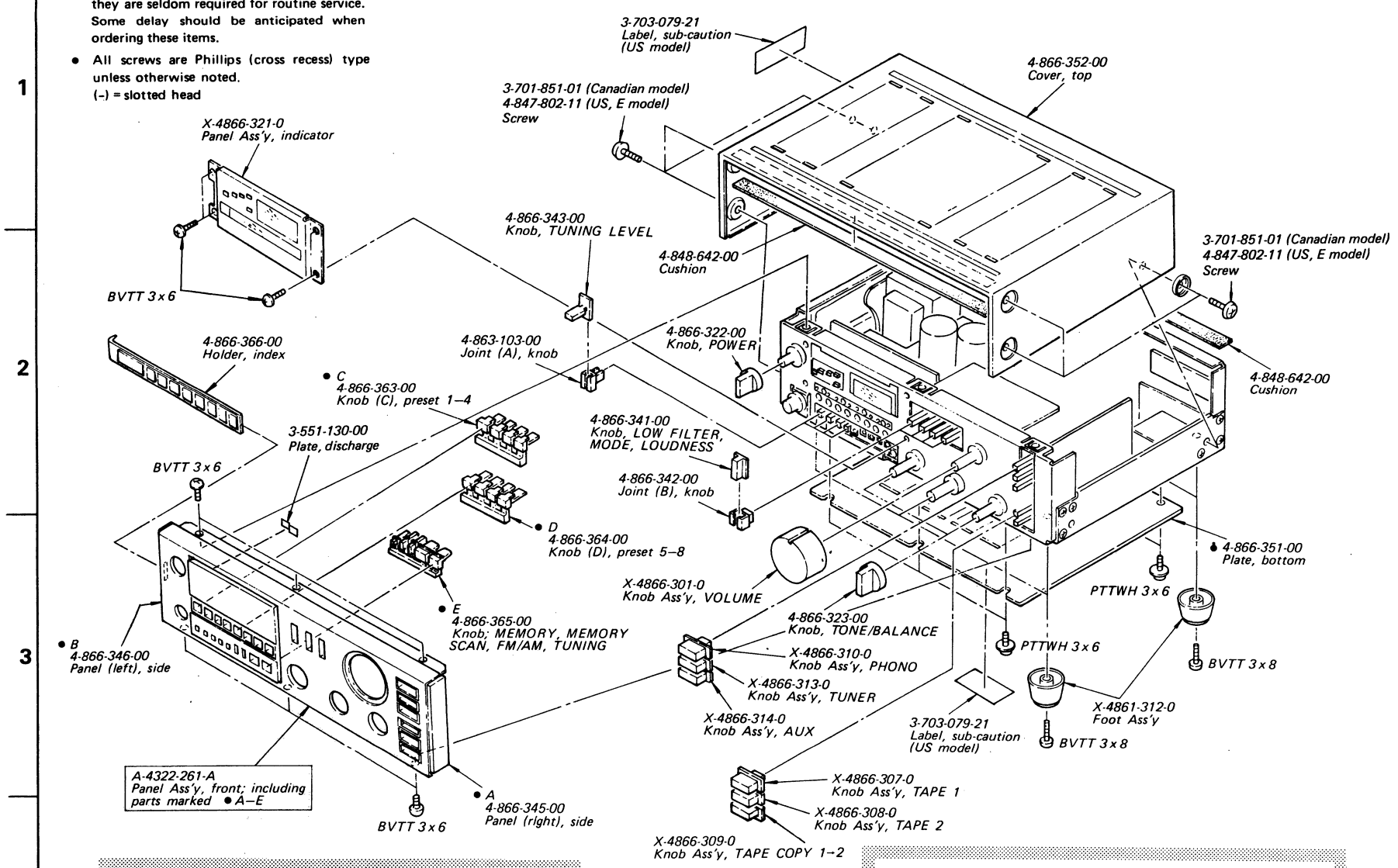
Semiconductor Lead Layouts:



SECTION 5 EXPLODED VIEWS

(1)

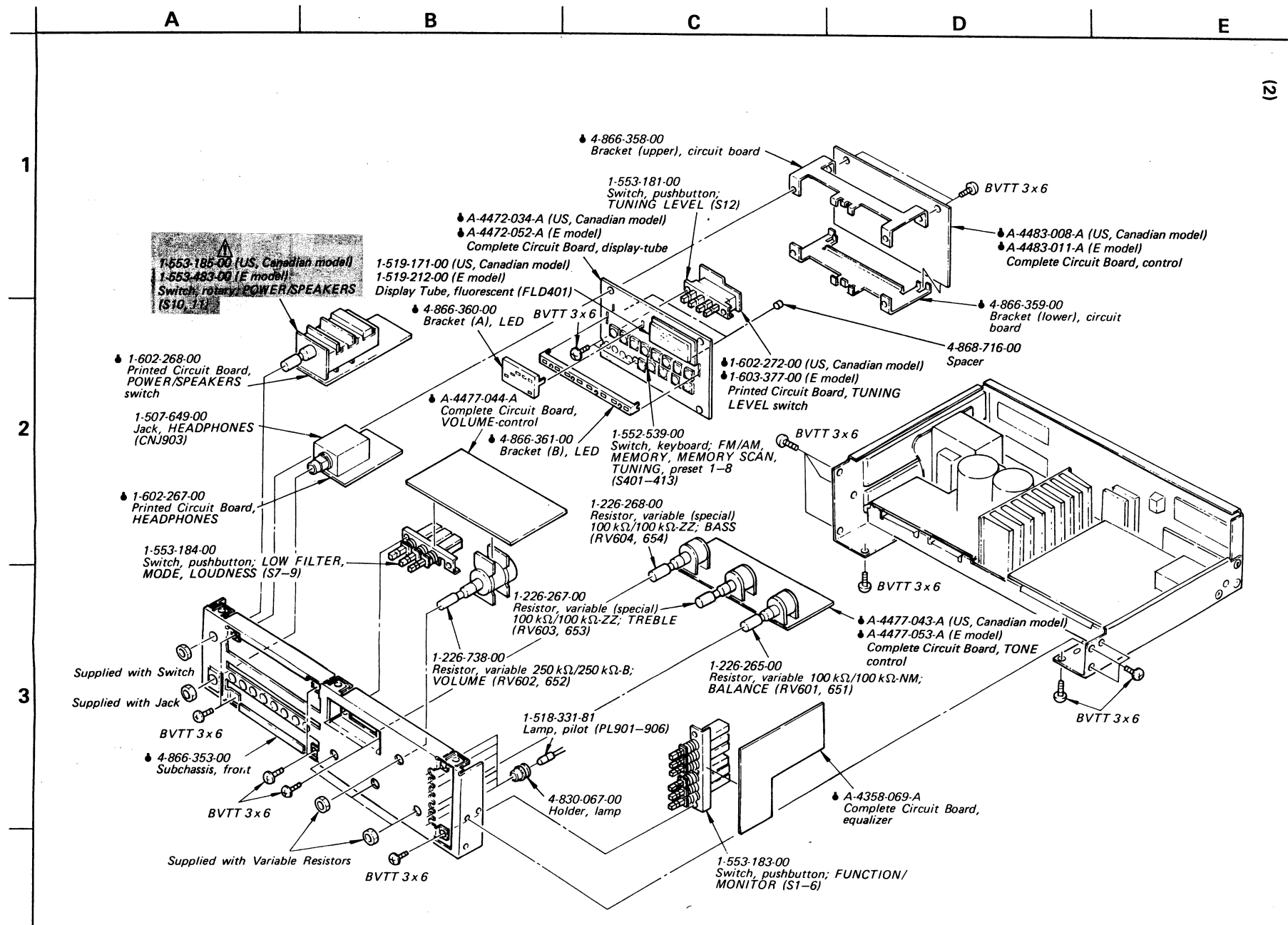
Note:
- Items marked "♦" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All screws are Phillips (cross recess) type unless otherwise noted. (-) = slotted head



Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

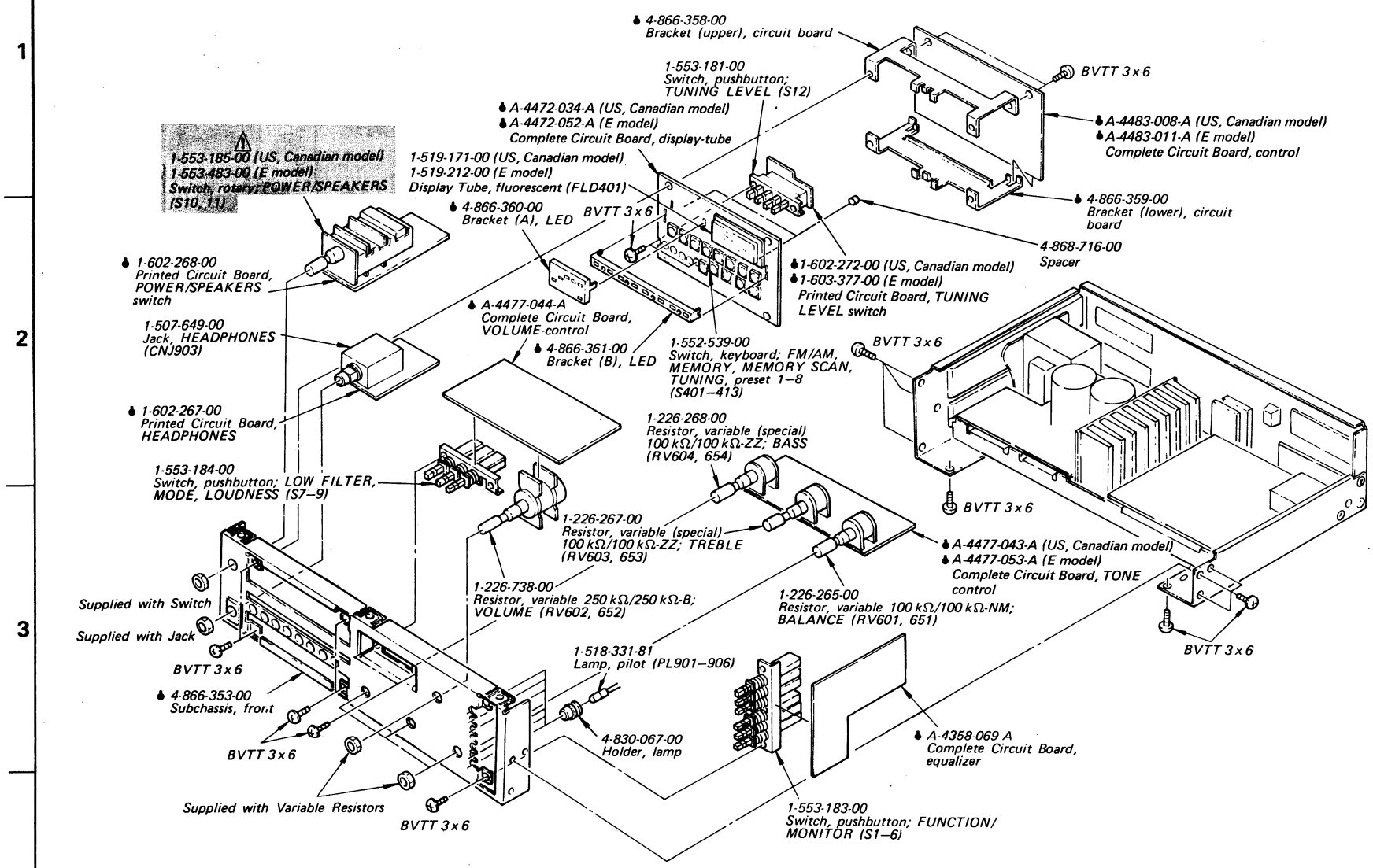
Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

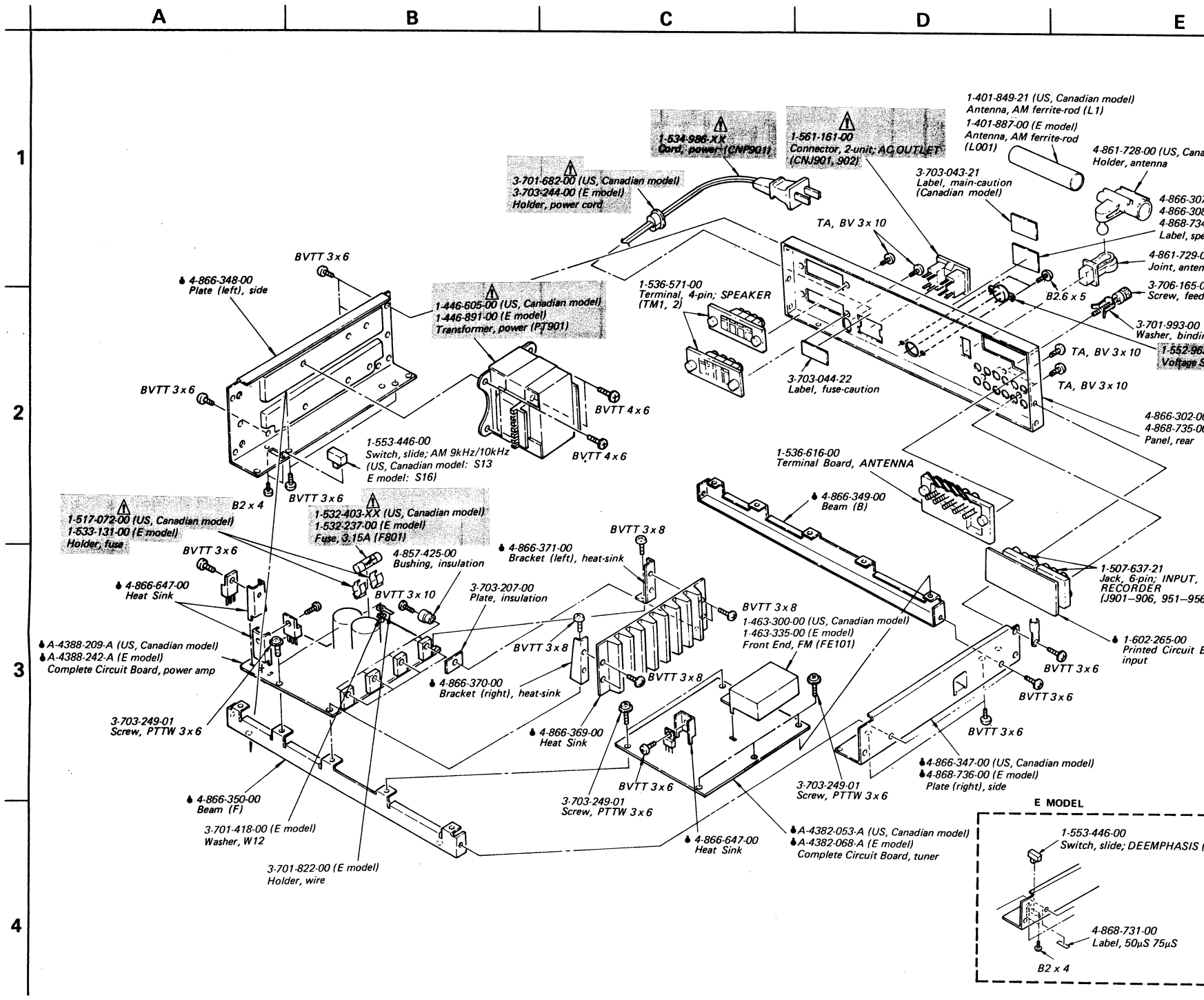
(2)



(3)

STR-V45


(2)
4-866-358-00
Bracket (upper), circuit board
1-553-181-00
Switch, pushbutton; TUNING LEVEL (S12)
BVTT 3x6
A-4483-008-A (US, Canadian model)
A-4483-011-A (E model)
Complete Circuit Board, control
A-4472-034-A (US, Canadian model)
A-4472-052-A (E model)
Complete Circuit Board, display-tube
1-553-185-00 (US, Canadian model)
1-553-483-00 (E model)
Switch, rotary; POWER/SPEAKERS (S10, 11)
1-519-171-00 (US, Canadian model)
1-519-212-00 (E model)
Display Tube, fluorescent (FLD401)
4-866-360-00
Bracket (A), LED
BVTT 3x6
4-866-359-00
Bracket (lower), circuit board
4-868-716-00
Spacer
1-602-268-00
Printed Circuit Board, POWER/SPEAKERS switch
1-602-272-00 (US, Canadian model)
1-603-377-00 (E model)
Printed Circuit Board, TUNING LEVEL switch
A-4477-044-A
Complete Circuit Board, VOLUME-control
1-507-649-00
Jack, HEADPHONES (CNJ903)
4-866-361-00
Bracket (B), LED
1-552-539-00
Switch, keyboard; FM/AM, MEMORY, MEMORY SCAN, TUNING, preset 1–8 (S401–413)
BVTT 3x6
1-602-267-00
Printed Circuit Board, HEADPHONES
1-226-268-00
Resistor, variable (special) 100 kΩ/100 kΩ-ZZ; BASS (RV604, 654)
1-553-184-00
Switch, pushbutton; LOW FILTER, MODE, LOUDNESS (S7–9)
BVTT 3x6
1-226-267-00
Resistor, variable (special) 100 kΩ/100 kΩ-ZZ; TREBLE (RV603, 653)
A-4477-043-A (US, Canadian model)
A-4477-053-A (E model)
Complete Circuit Board, TONE control
1-226-738-00
Resistor, variable 250 kΩ/250 kΩ-B; VOLUME (RV602, 652)
1-226-265-00
Resistor, variable 100 kΩ/100 kΩ-NM; BALANCE (RV601, 651)
Supplied with Switch
Supplied with Jack
BVTT 3x6
BVTT 3x6
1-518-331-81
Lamp, pilot (PL901–906)
4-866-353-00
Subchassis, front
BVTT 3x6
4-830-067-00
Holder, lamp
A-4358-069-A
Complete Circuit Board, equalizer
Supplied with Variable Resistors
BVTT 3x6
1-553-183-00
Switch, pushbutton; FUNCTION/ MONITOR (S1–6)


(3)
1-401-849-21 (US, Canadian model)
Antenna, AM ferrite-rod (L1)
1-401-887-00 (E model)
Antenna, AM ferrite-rod (L001)
1-534-986-XX
Cord, power (CNP901)
1-561-161-00
Connector, 2-unit; AC OUTLET (CNJ901, 902)
4-861-728-00 (US, Canadian model)
Holder, antenna
3-701-682-00 (US, Canadian model)
3-703-244-00 (E model)
Holder, power cord
3-703-043-21
Label, main-caution (Canadian model)
4-866-307-01 (US model)
4-866-308-01 (Canadian model)
4-868-734-00 (E model)
Label, specification
TA, BV 3x10
BVTT 3x6
4-866-348-00
Plate (left), side
1-446-605-00 (US, Canadian model)
1-446-891-00 (E model)
Transformer, power (PT901)
1-536-571-00
Terminal, 4-pin; SPEAKER (TM1, 2)
4-861-729-00 (US, Canadian model)
Joint, antenna holder
B2.6 x 5
3-706-165-00
Screw, feeder-holding
3-701-993-00
Washer, binding-post
1-552-963-00 (E model)
Voltage Selector (VS901)
TA, BV 3x10
TA, BV 3x10
3-703-044-22
Label, fuse-caution
BVTT 3x6
BVTT 4x6
BVTT 4x6
1-553-446-00
Switch, slide; AM 9kHz/10kHz (US, Canadian model: S13 E model: S16)
4-866-302-00 (US, Canadian model)
4-868-735-00 (E model)
Panel, rear
1-536-616-00
Terminal Board, ANTENNA
B2 x 4
BVTT 3x6
1-517-072-00 (US, Canadian model)
1-533-131-00 (E model)
Holder, fuse
1-532-403-XX (US, Canadian model)
1-532-237-00 (E model)
Fuse, 3.15A (F801)
4-866-349-00
Beam (B)
BVTT 3x8
4-857-425-00
Bushing, insulation
4-866-371-00
Bracket (left), heat-sink
BVTT 3x6
4-866-647-00
Heat Sink
BVTT 3x10
3-703-207-00
Plate, insulation
1-507-637-21
Jack, 6-pin; INPUT, TAPE, RECORDER (J901–906, 951–956)
BVTT 3x8
1-463-300-00 (US, Canadian model)
1-463-335-00 (E model)
Front End, FM (FE101)
A-4388-209-A (US, Canadian model)
A-4388-242-A (E model)
Complete Circuit Board, power amp
BVTT 3x8
1-602-265-00
Printed Circuit Board, input
BVTT 3x6
BVTT 3x8
4-866-370-00
Bracket (right), heat-sink
BVTT 3x6
BVTT 3x6
3-703-249-01
Screw, PTTW 3x6
4-866-369-00
Heat Sink
BVTT 3x6
4-866-347-00 (US, Canadian model)
4-868-736-00 (E model)
Plate (right), side
4-866-350-00
Beam (F)
3-703-249-01
Screw, PTTW 3x6
3-703-249-01
Screw, PTTW 3x6
3-701-418-00 (E model)
Washer, W12
4-866-647-00
Heat Sink
A-4382-053-A (US, Canadian model)
A-4382-068-A (E model)
Complete Circuit Board, tuner
3-701-822-00 (E model)
Holder, wire
E MODEL
1-553-446-00
Switch, slide; DEEMPHASIS (S17)
4-868-731-00
Label, 50μS 75μS
B2 x 4

SECTION 6
ELECTRICAL PARTS LIST

SEMICONDUCTORS

Transistors

Ref. No.	Part No.	Description
Q101, 102	8-729-671-14	2SC710
Q103, 104	8-729-663-47	2SC1364 (US, Canadian model)
	8-729-671-14	2SC710 (E model)
Q105, 106	8-729-671-14	2SC710 (E model)
Q107	8-729-663-47	2SC1364 (E model)
Q201, 251	8-729-663-47	2SC1364 (E model)
Q201–207	8-729-663-47	2SC1364 (US, Canadian model)
Q208	8-729-201-52	2SA1015 (US, Canadian model)
Q301, 302	8-729-663-47	2SC1364
Q303	8-729-203-04	2SK30A (E model)
	8-729-663-47	2SC1364 (US, Canadian model)
Q304	8-729-398-62	2SC1986 (E model)
	8-729-663-47	2SC1364 (US, Canadian model)
Q305–308	8-729-663-47	2SC1364
Q309	8-729-203-04	2SK30A (US, Canadian model)
	8-729-663-47	2SC1364 (E model)
Q310	8-729-308-72	2SC1986D (US, Canadian model)
	8-729-663-47	2SC1364 (E model)
Q311	8-729-612-77	2SA1027R (E model)
	8-729-663-47	2SC1364 (US, Canadian model)
Q312–317	8-729-663-47	2SC1364 (E model)
Q321, 322	8-729-663-47	2SC1364 (E model)
Q401	8-729-203-04	2SK30A (US, Canadian model)
Q402	8-729-377-58	2SC1775 (US, Canadian model)
Q403	8-729-203-05	2SK30A-GR3 (E model)
	8-729-377-58	2SC1775 (US, Canadian model)
Q404	8-729-665-47	2SC1362 (E model)
	8-729-663-47	2SC1364 (US, Canadian model)
Q405	8-729-201-52	2SA1015 (US, Canadian model)
	8-729-663-47	2SC1364 (E model)
Q406, 407	8-729-201-52	2SA1015 (E model)
	8-729-663-47	2SC1364 (US, Canadian model)
Q408	8-729-663-47	2SC1364 (E model)
	8-729-201-52	2SA1015 (US, Canadian model)
Q409	8-729-663-47	2SC1364
Q410, 411	8-729-201-52	2SA1015 (US, Canadian model)
	8-729-663-47	2SC1364 (E model)
Q412	8-729-663-47	2SC1364
Q413	8-729-663-47	2SC1364 (E model)
Q414, 415	8-729-663-47	2SC1364 (US, Canadian model)
Q601	8-729-306-72	2SD667A
Q602	8-729-300-72	2SB647A
Q701, 751	8-729-672-52	2SC2725
Q702, 752	8-729-697-92	2SA979
Q703, 753	8-729-601-42	2SC1914A
Q704, 754	8-729-673-53	2SC1735
Q705, 755	8-729-685-03	2SA850
Q706, 756	8-729-308-72	2SC1986D
Q707, 757	8-729-377-12	2SA771
Q708, 758	8-729-663-47	2SC1364
Q709, 759	8-729-612-77	2SA1027R
Q710, 711	8-729-204-91	2SA1049
Q712, 713	8-729-663-47	2SC1364
Q714–716	8-729-663-47	2SC1364
Q760, 761	8-729-204-91	2SA1049
Q801	8-729-217-33	2SC1173
Q802	8-729-247-33	2SA473
Q803, 804	8-729-203-04	2SK30A
Q805	8-760-413-10	2SC1475
Q806	8-729-374-02	2SB740

ICs

Ref. No.	Part No.	Description
IC101	8-759-111-67	μPC1167C (US, Canadian model)
	8-759-812-31	LA1231 (E model)
IC201	8-759-111-61	μPC1161C (US, Canadian model)
	8-759-320-16	HA12016 (E model)
IC301	8-759-111-78	μPC1178 (US, Canadian model)
IC302	8-759-814-16	LB1416 (US, Canadian model)
IC303	8-759-140-11	μPD4011C (US, Canadian model)
	8-759-984-69	MB84069B (E model)
IC304	8-759-140-69	μPD4069C (US, Canadian model)
	8-759-140-11	μPD4011C (E model)
IC401	8-759-155-21	μPB552C (US, Canadian model)
	8-759-153-65	μPD553C-065 (E model)
IC402	8-759-128-19	μPD2819C (US, Canadian model)
	8-759-607-78	CX778 (E model)

Note: Items marked "●" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description
IC403	8-759-140-69	μPD4069C (US, Canadian model)
	8-759-140-11	μPD4011C (E model)
IC404	8-759-140-01	μPD4001C (US, Canadian model)
	8-759-100-67	μPA67C (E model)
IC405	8-759-152-37	μPD552C037 (US, Canadian model)
	8-757-611-00	CX761A (E model)
IC406	8-757-611-00	CX761A (US, Canadian model)
	8-759-920-10	1R2E01 (E model)
IC407	8-759-100-67	μPA67C (US, Canadian model)
IC501, 551	8-759-652-14	M5214L
IC601	8-759-745-60	NJM4560D

Diodes

Ref. No.	Part No.	Description
D101	8-719-815-55	1S1555
D102, 103	8-719-815-55	1S1555 (E model)
D201–205	8-719-815-55	1S1555 (US, Canadian model)
D301	8-719-912-27	KV1226 (US, Canadian model)
D302	8-719-912-27	KV1226 (E model)
	8-719-931-16	EQB01-16 (US, Canadian model)
D303, 304	8-719-815-55	1S1555 (US, Canadian model)
D305	8-719-931-16	EQB01-16 (E model)
	8-719-815-55	1S1555 (US, Canadian model)
D306–312	8-719-815-55	1S1555
D313–317	8-719-815-55	1S1555 (E model)
D401, 402	8-719-815-55	1S1555 (US, Canadian model)
D402	8-719-912-00	MV12N (E model)
D403	8-719-815-55	1S1555
D404–408	8-719-815-55	1S1555 (E model)
D409	8-719-815-55	1S1555 (US, Canadian model)
D410–412	8-719-815-55	1S1555
D413–415	8-719-311-12	SEL1112R (US, Canadian model)
D416–419	8-719-815-55	1S1555 (E model)
	8-719-311-12	SEL1112R (US, Canadian model)
D420	8-719-311-12	SEL1112R (US, Canadian model)
	8-719-922-41	SLP241B (E model)
D421	8-719-812-41	TLR124 (US, Canadian model)
	8-719-922-41	SLP241B (E model)
D422–424	8-719-922-41	SLP241B
D425	8-719-922-41	SLP241B (US, Canadian model)
	8-719-900-41	SLP141B (E model)
D426	8-719-311-12	SEL1112R (E model)
	8-719-922-41	SLP241B (US, Canadian model)
D427	8-719-311-12	SEL1112R (E model)
	8-719-922-41	SLP241B (US, Canadian model)
D428–433	8-719-311-12	SEL1112R (E model)
D434, 435	8-719-815-55	1S1555 (E model)
D701	8-719-815-55	1S1555
D702	8-719-300-11	SV04S
D703–705	8-719-815-55	1S1555
D751	8-719-815-55	1S1555
D752	8-719-300-11	SV04S
D753, 754	8-719-815-55	1S1555
D801	⚠8-719-504-40	S4VB40
D802–805	⚠8-719-200-02	10E2
D806	8-719-931-05	EQB01-05
D807, 808	⚠8-719-200-02	10E2
D809, 810	8-719-931-30	EQB01-30
D811, 812	8-719-931-06	EQB01-06
D813	8-719-200-02	10E2

CAPACITORS

All capacitors are in μF and ceramic unless otherwise noted.
50WV or less are not indicated except for electrolytics.
p : μμF, elect : electrolytic

Ref. No.	Part No.	Description		
C504	1-130-307-00	0.027	100V	polypropylene (E model)
C505	1-130-294-00	0.0075	100V	polypropylene (E model)
	1-108-576-00	0.0075	50V	mylar (US, Canadian model)
C554	1-130-307-00	0.027	100V	polypropylene (E model)
C555	1-130-294-00	0.0075	100V	polypropylene (E model)
	1-108-576-00	0.0075	50V	mylar (US, Canadian model)
C801–804	⚠1-108-385-00	0.047	100V	mylar

Ref. No.	Part No.	Description
C807, 808	⚠1-102-394-00	0.01 250V (dual)
C809–811	⚠1-161-330-11	0.01 film
C818	⚠1-102-394-00	0.01 250V (dual)
C819, 820	⚠1-123-515-00	330 50V elect (E model)
CT301	1-141-171-XX	Trimmer (US, Canadian model)
CT302	1-141-171-XX	Trimmer
CT304	1-141-171-XX	Trimmer (E model)

RESISTORS

All resistors are in ohms. Common ¼W carbon resistors are omitted. Refer to the list on page 72 for their part numbers.

Ref. No.	Part No.	Description
R001	⚠1-202-725-00	3.3 ½W composition (US, Canadian model)
R301	1-244-891-00	5.6k ½W (US, Canadian model)
R617	⚠1-247-216-00	100 ½W carbon (nonflammable)
R620	⚠1-247-216-00	100 ½W carbon (nonflammable)
R704, 705	⚠1-247-138-00	2k ¼W carbon (nonflammable)
R711	⚠1-247-107-00	100 ¼W carbon (nonflammable)
R713, 714	⚠1-247-114-00	200 ¼W carbon (nonflammable)
R715, 716	⚠1-247-107-00	100 ¼W carbon (nonflammable)
R718	⚠1-247-083-00	10 ¼W carbon (nonflammable)
R720, 721	1-247-099-00	47 carbon (nonflammable) (E model)
R722	1-247-122-00	430 carbon (nonflammable) (E model)
R723, 724	1-247-107-00	100 carbon (nonflammable) (E model)
R725, 726	⚠1-217-157-00	0.33 5W wirewound (US, Canadian model)
	⚠1-207-615-00	0.33 2W wirewound (E model)
R727	1-244-825-00	10 ½W (US model)
	1-217-192-00	10 ½W wirewound (Canadian model)
R728	1-244-817-00	4.7 ½W carbon
R729, 730	1-247-129-00	820 carbon (nonflammable) (E model)
R742	⚠1-247-083-00	10 ¼W carbon (nonflammable)
R754, 755	⚠1-247-138-00	2k ¼W carbon (nonflammable)
R761	1-247-107-00	100 ¼W carbon (nonflammable) (US, Canadian model)
R763, 764	⚠1-247-114-00	200 ¼W carbon (nonflammable)
R765, 766	⚠1-247-107-00	100 ¼W carbon (nonflammable)
R768	⚠1-247-083-00	10 ¼W carbon (nonflammable)
R770, 771	1-247-099-00	47 carbon (nonflammable) (E model)
R772	1-247-122-00	430 carbon (nonflammable) (E model)
R773, 774	1-247-107-00	100 carbon (nonflammable) (E model)
R775, 776	⚠1-217-157-00	0.33 5W wirewound (US, Canadian model)
	⚠1-207-615-00	0.33 2W wirewound (E model)
R777	⚠1-244-825-00	10 ½W (US, E model)
	⚠1-247-192-00	10 ½W (nonflammable) (Canadian model)
R778	1-244-817-00	4.7 ½W
R779, 780	1-247-129-00	820 carbon (nonflammable) (E model)
R792	⚠1-247-083-00	10 ¼W carbon (nonflammable)
R801	⚠1-247-119-00	330 ¼W carbon (nonflammable)
R802	⚠1-247-079-00	4.7 ¼W carbon (nonflammable)
R804	⚠1-247-119-00	330 ¼W carbon (nonflammable)
R806	⚠1-247-079-00	4.7 ¼W carbon (nonflammable)

Ref. No.	Part No.	Description
R807	⚠1-206-475-00	33 2W carbon (nonflammable) (E model)
	⚠1-206-640-00	100 2W carbon (nonflammable) (US, Canadian model)
R808, 809	⚠1-247-107-00	100 ¼W carbon (nonflammable)
R820	⚠1-206-652-00	330 2W carbon (nonflammable) (US, Canadian model)
	⚠1-206-653-00	360 2W carbon (nonflammable) (E model)
R824	⚠1-247-101-00	56 ¼W carbon (nonflammable) (E model)
R902, 903	1-213-139-00	470 1W metal oxide (E model)
	1-244-865-00	470 ½W (US, Canadian model)
RT101	1-226-237-00	20k-B, adjustable; fm tuning level (US, Canadian model)
	1-226-238-00	50k-B, adjustable; signal indicator (E model)
RT102	1-226-239-00	100k-B, adjustable; fm muting level (US, Canadian model)
	1-226-238-00	50k-B, adjustable; fm tuning level (E model)
RT103	1-226-238-00	50k-B, adjustable; fm muting level (E model)
RT201	1-226-238-00	50kΩ-B, adjustable; stereo separation (E model)
	1-226-240-00	200k-B, adjustable; stereo separation (US, Canadian model)
RT202	1-226-235-00	5k-B, adjustable; VCO
RT301	1-226-239-00	100kΩ-B, adjustable; signal strength (US, Canadian model)
	1-226-238-00	50kΩ-B, adjustable; a-m tuning level (E model)
RT302	1-226-235-00	5k-B, adjustable; a-m muting level (US, Canadian model)
RT401	1-226-232-11	500-B, adjustable; PLL (US, Canadian model)
	1-226-427-00	500-B, adjustable; PLL (E model)
RV601, 651	1-226-265-00	100k/100k-MM, variable; BALANCE
RV602, 652	1-226-738-00	250k/250k-B, variable; VOLUME
RV603, 653	1-226-267-00	100k/100k-ZZ, variable (special); TREBLE
RV604, 654	1-226-268-00	100k/100k-ZZ, variable (special); BASS
RV701	1-226-233-00	1k-B, adjustable; dc balance
RV702	1-226-337-00	20k-B, adjustable; dc bias
RV751	1-226-233-00	1k-B, adjustable; dc balance
RV752	1-226-237-00	20k-B, adjustable; dc bias

MISCELLANEOUS

CF101–103	1-527-307-XX	Filter, ceramic (US, Canadian model)
CF101–104	1-527-307-XX	Filter, ceramic (E model)
CF301	1-527-402-00	Filter, mechanical (US, Canadian model)
	1-527-403-00	Filter, mechanical (E model)
CF302	1-527-403-00	Filter, mechanical (US, Canadian model)
	1-527-732-00	Filter, ceramic (E model)
CNJ901,902	⚠1-561-161-00	Connector, 2-unit; AC OUTLET
CNJ903	⚠1-507-649-00	Jack, HEADPHONES
CNP901	⚠1-534-986-XX	Cord, power
CP901	⚠1-231-326-11	Encapsulated component (US model)
	⚠1-231-341-00	Encapsulated component (Canadian model)
F801	⚠1-532-403-XX	Fuse, 3.15A (US, Canadian model)
	⚠1-532-237-00	Fuse, 3.15A (E model)
FE101	1-463-300-00	Front End, FM (US, Canadian model)
	1-463-335-00	Front End, FM (E model)
FLD401	1-519-171-00	Display Tube, fluorescent (US, Canadian model)
	1-519-212-00	Display Tube, fluorescent
IFT101	1-404-170-00	IFT (US, Canadian model)
	1-404-258-00	IFT (E model)
IFT301	1-409-323-00	Coil, mechanical-filter
IFT302	1-409-324-00	Coil, mechanical-filter
IFT303	1-404-189-00	IFT (US, Canadian model)
	1-404-266-00	IFT (E model)
J901–906, J951–956	1-507-637-21	Jack, 6-pin; INPUT, TAPE, RECORDER
L001	1-401-887-21	Antenna, AM ferrite-rod (E model)
L1	1-401-849-21	Antenna, AM ferrite-rod (US, Canadian model)

Ref. No.	Part No.	Description
L301	1-407-169-XX	Coil, microinductor; 100μH
L302	1-407-177-XX	Coil, microinductor, 470μH (US, Canadian model)
L303	1-405-898-00	Coil, AM OSC (US, Canadian model)
	1-405-927-00	Coil, AM OSC (E model)
L304	1-407-878-00	Coil, microinductor, 27mH (US, Canadian model)
L305	1-407-176-00	Coil, microinductor; 390μH (E model)
L401	1-407-190-00	Coil, microinductor; 10μH (US, Canadian model)
L403	1-407-169-XX	Coil, microinductor; 100μH (US, Canadian model)
L404	1-407-190-00	Coil, microinductor, 10μH (US, Canadian model)
♦L701, 751	1-420-838-12	Coil
LPF101	1-231-729-00	Filter, low-pass (E model)
LPF201	1-231-574-00	Filter, low-pass (E model)
LPF201,202	1-231-224-00	Filter, low-pass (US, Canadian model)
PL1–6	1-518-331-81	Lamp, pilot; 6V 35mA (US, Canadian model)
PL901–906	1-518-331-81	Lamp, pilot; 6V 35mA (E model)
PT901	⚠1-446-605-00	Transformer, power (US, Canadian model)
	⚠1-446-891-00	Transformer, power (E model)
RY701	⚠1-553-227-00	Relay
S1–6	1-553-183-00	Switch, pushbutton; FUNCTION/ MONITOR
S7–9	1-553-184-00	Switch, pushbutton; LOW FILTER, MODE, LOUDNESS
S10, 11	⚠1-553-185-00	Switch, rotary; POWER/SPEAKERS (US, Canadian model)
	⚠1-553-483-00	Switch, rotary; POWER/SPEAKERS (E model)
S12	1-553-181-00	Switch, pushbutton; TUNING LEVEL (US, Canadian model)
S13	1-553-446-00	Switch, slide; AM 9kHz/10kHz (US, Canadian model)
S12–15	1-553-181-00	Switch, pushbutton; 4-unit; TUNING LEVEL (E model)
S16, 17	1-553-446-00	Switch, slide; AM 9kHz/10kHz, DEEMPHASIS (E model)

Ref. No.	Part No.	Description
S401–413	1-552-539-00	Switch, key-board; FM/AM MEMORY, MEMORY SCAN, TUNING, PRESET 1–8
TM1, 2	1-536-571-00	Terminal, 4-pin; SPEAKER
VS901	⚠1-552-963-00	Selector, voltage (E model)
X401	1-527-404-00	Crystal (US, Canadian model)
	1-527-731-00	Crystal (E model)
	♦1-508-799-00	Post, base; U-shaped
	♦1-508-809-00	Post, base (US, Canadian model)
	⚠1-517-072-00	Holder, fuse (US, Canadian model)
	⚠1-533-131-00	Holder, fuse (E model)
	♦1-535-114-00	Terminal, wire-wrapping; 1-pin (US, Canadian model)
	♦1-535-115-00	Terminal, wire-wrapping; 2-pin
	♦1-535-116-00	Terminal, wire-wrapping; 3-pin
	♦1-535-117-00	Terminal, wire-wrapping; 4-pin
	♦1-535-118-00	Terminal, wire-wrapping; 5-pin
	♦1-535-120-00	Terminal, with base, 7-pin
	1-536-616-00	Terminal, ANTENNA
	1-560-060-00	Connector, 2-pin
	1-560-061-11	Connector, 3-pin
	1-560-062-00	Connector, 4-pin
	1-560-063-11	Connector, 5-pin
	1-560-064-00	Connector, 6-pin
	1-560-065-11	Connector, 8-pin

PRINTED CIRCUIT BOARDS

♦1-602-265-00	INPUT
♦1-602-267-00	HEADPHONES
♦1-602-268-00	POWER/SPEAKERS switch
♦1-602-272-00	TUNING LEVEL switch (US, Canadian model)
♦1-603-377-00	TUNING LEVEL switch (E model)

COMPLETE CIRCUIT BOARDS

♦A-4358-069-A	Equalizer
♦A-4382-053-A	Tuner (US, Canadian model)
♦A-4382-068-A	Tuner (E model)
♦A-4388-209-A	Power Amp (US, Canadian model)
♦A-4388-242-A	Power Amp (E model)

Ref. No.	*Part No.*	*Description*
♦	A-4472-034-A	Display Tube (US, Canadian model)
♦	A-4472-052-A	Display Tube (E model)
♦	A-4477-043-A	TONE Control (US, Canadian model)
♦	A-4477-044-A	VOLUME Control
♦	A-4477-053-A	TONE Control (E model)
♦	A-4483-008-A	Control (US, Canadian model)
♦	A-4483-011-A	Control (E model)

ACCESSORIES AND PACKING MATERIALS

Part No.	*Description*
1-501-161-00	Antenna, FM
3-701-630-00	Bag, plastic; instruction manual
3-783-168-11	Manual, instruction (E model)
3-783-168-21	Manual, instruction (US, Canadian model)
4-809-251-00	Bag, plastic; set
4-866-387-00	Sheet, station-index
4-866-398-00	Cushion (top)
4-866-399-00	Cushion (bottom)
4-868-705-00	Carton
4-868-713-00	Cushion (top)
4-868-714-00	Cushion (bottom)

SONY-STANDARD REPLACEMENT CAPACITORS AND RESISTORS LIST

ELECTROLYTIC CAPACITORS

RATING → : Use the high voltage rated one.

CAP. (μF)	6.3 VOLT. PART No.	10 VOLT. PART No.	16 VOLT. PART No.	25 VOLT. PART No.	35 VOLT. PART No.	50 VOLT. PART No.
0.47					→	1-121-726-00
1.0					→	1-121-391-00
2.2					→	1-121-450-00
3.3	→	→	→	1-121-392-00	→	1-121-393-00
4.7	→	→	→	1-121-395-00	→	1-121-396-00
10	→	→	1-121-651-00	1-121-398-00	→	1-121-738-00
22	→	→	1-121-479-00	1-121-480-00	1-121-662-00	1-121-152-00
33	→	→	1-121-403-00	1-121-404-00	1-121-652-00	1-121-405-00
47	→	1-121-352-00	1-121-409-00	1-121-410-00	1-121-653-00	1-121-411-00
100	→	1-121-414-00	1-121-415-00	1-121-416-00	1-121-357-00	1-121-417-00
220	1-121-419-00	1-121-420-00	1-121-421-00	1-121-422-00	1-121-261-00	1-121-423-00
330	1-121-751-00	1-121-805-00	1-121-521-00	1-121-654-00	1-121-655-00	1-121-656-00
470	1-121-424-00	1-121-425-00	1-121-426-00	1-121-733-00	1-121-361-00	1-121-810-00
1000	–	1-121-736-00	1-121-245-00	1-121-657-00	1-121-388-00	1-123-061-00
2200	1-121-658-00	1-121-659-00	1-121-660-00	1-123-067-00	1-121-984-00	–
3300	1-121-661-00	1-123-075-00	1-123-071-00	–	–	–

CAP. (μF)	100 VOLT. PART No.	160 VOLT. PART No.	250 VOLT. PART No.	350 VOLT. PART No.
0.47	–	–	–	–
1.0	1-123-249-00	1-123-252-00	1-123-003-00	1-121-168-00
2.2	1-123-250-00	1-123-026-00	–	1-123-028-00
3.3	1-121-995-00	–	1-123-004-00	1-123-006-00
4.7	1-123-255-00	1-121-246-00	1-121-759-00	1-123-007-00
10	1-121-126-00	1-121-999-00	1-123-254-00	1-123-008-00
22	1-121-996-00	1-123-253-00	1-123-005-00	1-123-022-00
33	1-121-997-00	1-121-757-00	–	–
47	1-123-251-00	1-121-919-00	–	–
100	1-123-084-00	–	–	–

CERAMIC CAPACITORS

RATING

CAP. (pF)	50 VOLT. PART No.	CAP. (pF)	50 VOLT. PART No.	CAP. (pF)	50 VOLT. PART No.	CAP. (μF)	50 VOLT. PART No.
0.5	1-101-837-00	22	1-102-959-00	150	1-101-361-00	0.001	1-102-074-00
0.75	1-101-586-00	24	1-102-960-00	160	1-101-367-00	0.0012	1-102-118-00
1.0	1-102-934-00	27	1-102-961-00	180	1-102-976-00	0.0015	1-102-119-00
1.5	1-101-576-00	30	1-102-962-00	200	1-102-977-00	0.0018	1-102-120-00
2.0	1-102-935-00	33	1-102-963-00	220	1-102-978-00	0.0022	1-102-121-00
3	1-102-936-00	36	1-102-964-00	240	1-102-979-00	0.0027	1-102-122-00
4	1-102-937-00	39	1-102-965-00	270	1-102-980-00	0.0033	1-102-123-00
5	1-102-942-00	43	1-102-966-00	300	1-102-981-00	0.0039	1-102-124-00
6	1-102-943-00	47	1-101-880-00	330	1-102-820-00	0.0047	1-102-125-00
7	1-102-944-00	51	1-101-882-00	360	1-102-821-00	0.0056	1-102-126-00
8	1-102-945-00	56	1-101-884-00	390	1-102-822-00	0.0068	1-102-127-00
9	1-102-946-00	62	1-101-886-00	430	1-102-823-00	0.0082	1-102-128-00
10	1-102-947-00	68	1-101-888-00	470	1-102-824-00	0.01	1-102-129-00
11	1-102-948-00	75	1-101-890-00	510	1-101-059-00	0.022	1-101-005-00
12	1-102-949-00	82	1-102-971-00	560	1-102-115-00	0.047	1-101-006-00
13	1-102-950-00	91	1-102-972-00	680	1-102-116-00		
15	1-102-951-00	100	1-102-973-00	820	1-102-117-00		
16	1-102-952-00	110	1-102-815-00				
18	1-102-953-00	120	1-102-816-00				
20	1-102-958-00	130	1-101-081-00				

0.001μF = 1,000pF

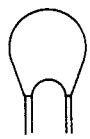
CERAMIC (SEMICONDUCTOR) CAPACITORS

RATING → : Use the high voltage rated one.

CAP. (μF)	25 VOLT. PART No.	50 VOLT. PART No.	CAP. (μF)	25 VOLT. PART No.	50 VOLT. PART No.
0.001	→	1-161-039-00	0.018	1-161-016-00	1-161-054-00
0.0012	→	1-161-040-00	0.022	1-161-017-00	1-161-055-00
0.0015		1-161-041-00	0.027	1-161-018-00	1-161-056-00
0.0018		1-161-042-00	0.033	1-161-019-00	1-161-057-00
0.0022		1-161-043-00	0.039	1-161-010-00	1-161-058-00
0.0027	→	1-161-044-00	0.047	1-161-021-00	1-161-059-00
0.0033	→	1-161-045-00	0.056	→	1-161-060-00
0.0039	→	1-161-046-00	0.068	→	1-161-061-00
0.0047	→	1-161-047-00	0.082	1-161-024-00	1-161-062-00
0.0056	→	1-161-048-00	0.1	1-161-025-00	1-161-063-00
0.0068	→	1-161-049-00			
0.0082	1-161-012-00	1-161-050-00			
0.01	1-161-013-00	1-161-051-00			
0.012	→	1-161-052-00			
0.015	1-161-015-00	1-161-053-00			

MYLAR CAPACITORS

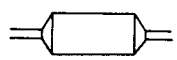
CAP. (μF)	RATING 50 VOLT. PART No.	100 VOLT. PART No.	200 VOLT. PART No.	CAP. (μF)	50 VOLT. PART No.	100 VOLT. PART No.	200 VOLT. PART No.	CAP. (μF)	50 VOLT. PART No.	100 VOLT. PART No.	200 VOLT. PART No.
0.001	1-108-227-00	1-108-365-00	1-108-409-00	0.01	1-108-239-00	1-108-377-00	1-108-421-00	0.1	1-108-251-00	1-108-389-00	1-108-433-00
0.0012	1-108-351-00	1-108-366-00	1-108-410-00	0.012	1-108-357-00	1-108-378-00	1-108-422-00	0.12	1-108-363-00	1-108-390-00	1-108-434-00
0.0015	1-108-228-00	1-108-367-00	1-108-411-00	0.015	1-108-240-00	1-108-379-00	1-108-423-00	0.15	1-108-252-00	1-108-391-00	1-108-435-00
0.0018	1-108-352-00	1-108-368-00	1-108-412-00	0.018	1-108-358-00	1-108-380-00	1-108-424-00	0.18	1-108-364-00	1-108-392-00	1-108-436-00
0.0022	1-108-230-00	1-108-369-00	1-108-413-00	0.022	1-108-242-00	1-108-381-00	1-108-425-00	0.22	1-108-254-00	1-108-393-00	1-108-437-00
0.0027	1-108-353-00	1-108-370-00	1-108-414-00	0.027	1-108-359-00	1-108-382-00	1-108-426-00	0.27	1-108-854-00	–	–
0.0033	1-108-232-00	1-108-371-00	1-108-415-00	0.033	1-108-244-00	1-108-383-00	1-108-427-00	0.33	1-108-855-00	–	–
0.0039	1-108-354-00	1-108-372-00	1-108-416-00	0.039	1-108-360-00	1-108-384-00	1-108-428-00	0.39	1-108-856-00	–	–
0.0047	1-108-234-00	1-108-373-00	1-108-417-00	0.047	1-108-246-00	1-108-385-00	1-108-429-00	0.47	1-108-857-00	–	–
0.0056	1-108-355-00	1-108-374-00	1-108-418-00	0.056	1-108-361-00	1-108-386-00	1-108-430-00				
0.0068	1-108-237-00	1-108-375-00	1-108-419-00	0.068	1-108-249-00	1-108-387-00	1-108-431-00				
0.0082	1-108-356-00	1-108-376-00	1-108-420-00	0.082	1-108-362-00	1-108-388-00	1-108-432-00				



TANTALUM CAPACITORS

RATING → : Use the high voltage rated one.

CAP. (μF)	3.15 VOLT. PART No.	6.3 VOLT. PART No.	10 VOLT. PART No.	16 VOLT. PART No.	20 VOLT. PART No.	25 VOLT. PART No.	35 VOLT. PART No.
0.01					→	→	1-131-396-00
0.015						→	1-131-397-00
0.022						→	1-131-398-00
0.033						→	1-131-399-00
0.047						→	1-131-400-00
0.068					→	→	1-131-401-00
0.1					→	→	1-131-402-00
0.15					→	→	1-131-403-00
0.22					→	→	1-131-404-00
0.33					→	1-131-409-00	1-131-405-00
0.47	–	–	–	–	1-131-412-00	→	1-131-406-00
0.68	–	–	–	1-131-415-00	→	1-131-410-00	1-131-407-00
1.0	–	–	1-131-418-00	–	1-131-413-00	→	1-131-408-00
1.5	–	1-131-421-00	–	1-131-416-00	→	1-131-411-00	1-131-348-00
2.2	1-131-424-00	–	1-131-419-00	–	1-131-414-00	1-131-355-00	1-131-349-00
3.3	–	1-131-422-00	–	1-131-417-00	1-131-362-00	1-131-356-00	1-131-350-00
4.7	1-131-425-00	–	1-131-420-00	1-131-369-00	1-131-363-00	1-131-357-00	1-131-351-00
6.8	–	1-131-423-00	1-131-376-00	1-131-370-00	1-131-364-00	1-131-358-00	1-131-352-00
10	1-131-426-00	1-131-383-00	1-131-377-00	1-131-371-00	1-131-365-00	1-131-359-00	1-131-353-00
15	1-131-390-00	1-131-384-00	1-131-378-00	1-131-372-00	1-131-366-00	1-131-360-00	–
22	1-131-391-00	1-131-385-00	1-131-379-00	1-131-373-00	1-131-367-00		
33	1-131-392-00	1-131-386-00	1-131-380-00	1-131-374-00			
47	1-131-393-00	1-131-387-00	1-131-381-00	–			
68	1-131-394-00	1-131-388-00	–	–			
100	1-131-395-00	–	–	–			



TANTALUM CAPACITORS

CAP. (μF)	RATING 3 VOLT. PART No.	6.3 VOLT. PART No.	10 VOLT. PART No.	16 VOLT. PART No.	20 VOLT. PART No.	35 VOLT. PART No.
0.033						1-131-273-00
0.047						1-131-274-00
0.068						1-131-275-00
0.1						1-131-276-00
0.15						1-131-277-00
0.22			–	–	1-131-262-00	1-131-278-00
0.33			–	–	1-131-263-00	1-131-279-00
0.47			1-131-169-00	–	1-131-264-00	1-131-280-00
0.68			–	1-131-258-00	1-131-265-00	1-131-281-00
1.0			1-131-254-00	–	1-131-266-00	1-131-282-00
1.5		1-131-250-00	–	–	1-131-267-00	1-131-283-00
2.2		–	–	1-131-259-00	1-131-268-00	1-131-284-00
3.3		–	1-131-255-00	–	1-131-269-00	–
4.7		1-131-251-00	1-131-171-00	–	1-131-270-00	–
6.8		–	–	1-131-260-00	1-131-271-00	–
10	–	–	1-131-256-00	–	1-131-272-00	–
15	–	1-131-252-00	–	1-131-261-00		
22	–	–	1-131-257-00	–		
33	1-131-176-00	1-131-253-00	1-131-173-00	–		
47	1-131-288-00	1-131-174-00	–	–		
100	1-131-177-00					

1/16 WATT CARBON RESISTOR

Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.
2.0	—	13	—	91	1-210-354-00	620	1-210-367-00	4.3k	1-209-772-00	30k	1-210-380-00	200k	1-210-839-00
2.2	—	15	—	100	1-210-355-00	680	1-210-106-00	4.7k	1-209-773-00	33k	1-210-381-00	220k	1-210-840-00
2.4	—	16	—	110	1-210-356-00	750	1-210-107-00	5.1k	1-209-774-00	36k	1-210-394-00	240k	—
2.7	—	18	1-211-688-00	120	1-210-357-00	820	1-210-108-00	5.6k	1-209-775-00	39k	1-210-382-00	270k	1-210-841-00
3.0	—	20	—	130	1-210-358-00	910	1-210-368-00	6.2k	1-209-776-00	43k	1-210-383-00	300k	—
3.3	—	22	—	150	1-210-102-00	1.0k	1-204-122-00	6.8k	1-209-777-00	47k	1-210-384-00	330k	1-210-842-00
3.6	—	24	—	160	1-210-359-00	1.1k	1-210-369-00	7.5k	1-209-778-00	51k	1-210-385-00	360k	—
3.9	—	27	—	180	1-210-360-00	1.2k	1-209-765-00	8.2k	1-209-779-00	56k	1-210-386-00	390k	1-210-843-00
4.3	—	30	1-210-845-00	200	1-210-361-00	1.3k	1-210-370-00	9.1k	1-209-780-00	62k	1-210-387-00	430k	—
4.7	—	33	1-210-846-00	220	1-210-362-00	1.5k	1-209-766-00	10k	1-209-781-00	68k	1-210-388-00	470k	1-210-844-00
5.1	—	36	1-210-847-00	240	1-209-762-00	1.6k	1-210-371-00	11k	1-210-374-00	75k	1-210-389-00	510k	—
5.6	—	39	1-210-848-00	270	1-210-363-00	1.8k	1-209-878-00	12k	1-210-111-00	82k	1-210-390-00	560k	1-211-695-00
6.2	—	43	1-210-849-00	300	1-210-364-00	2.0k	1-209-767-00	13k	1-210-375-00	91k	1-210-391-00	620k	—
6.8	—	47	1-210-395-00	330	1-209-763-00	2.2k	1-209-768-00	15k	1-210-112-00	100k	1-210-115-00	680k	1-211-696-00
7.5	—	51	1-210-101-00	360	1-210-103-00	2.4k	1-209-769-00	16k	1-210-376-00	110k	—	750k	—
8.2	—	56	1-210-351-00	390	1-210-365-00	2.7k	1-209-770-00	18k	1-210-113-00	120k	1-210-836-00	820k	1-211-698-00
9.1	—	62	1-210-352-00	430	1-210-366-00	3.0k	1-210-372-00	20k	1-210-377-00	130k	—	910k	—
10	—	68	1-210-353-00	470	1-209-764-00	3.3k	1-204-123-00	22k	1-210-114-00	150k	1-210-837-00	1 M	—
11	—	75	1-210-392-00	510	1-210-104-00	3.6k	1-210-373-00	24k	1-210-378-00	160k	—		
12	—	82	1-210-393-00	560	1-210-105-00	3.9k	1-209-771-00	27k	1-210-379-00	180k	1-210-838-00		

1/8 WATT CARBON RESISTOR

Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.
2.0	—	13	1-246-821-00	91	1-246-831-00	620	1-246-841-00	4.3k	1-246-851-00	30k	1-246-861-00	200k	1-246-871-00
2.2	1-246-751-00	15	1-246-761-00	100	1-246-771-00	680	1-246-781-00	4.7k	1-246-791-00	33k	1-246-801-00	220k	1-246-811-00
2.4	—	16	1-246-822-00	110	1-246-832-00	750	1-246-842-00	5.1k	1-246-852-00	36k	1-246-862-00	240k	1-247-054-00
2.7	1-246-752-00	18	1-246-762-00	120	1-246-772-00	820	1-246-782-00	5.6k	1-246-792-00	39k	1-246-802-00	270k	1-247-046-00
3.0	—	20	1-246-823-00	130	1-246-833-33	910	1-246-843-00	6.2k	1-246-853-00	43k	1-246-863-00	300k	1-247-055-00
3.3	1-246-753-00	22	1-246-763-00	150	1-246-773-00	1.0k	1-246-783-00	6.8k	1-246-793-00	47k	1-246-803-00	330k	1-247-047-00
3.6	—	24	1-246-824-00	160	1-246-834-00	1.1k	1-246-844-00	7.5k	1-246-854-00	51k	1-246-864-00	360k	1-247-056-00
3.9	1-246-754-00	27	1-246-764-00	180	1-246-774-00	1.2k	1-246-784-00	8.2k	1-246-794-00	56k	1-246-804-00	390k	1-247-048-00
4.3	—	30	1-246-825-00	200	1-246-835-00	1.3k	1-246-845-00	9.1k	1-246-855-00	62k	1-246-865-00	430k	1-247-057-00
4.7	1-246-755-00	33	1-246-765-00	220	1-246-775-00	1.5k	1-246-785-00	10k	1-246-795-00	68k	1-246-805-00	470k	1-247-049-00
5.1	—	36	1-246-826-00	240	1-246-836-00	1.6k	1-246-846-00	11k	1-246-856-00	75k	1-246-866-00	510k	1-247-058-00
5.6	1-246-756-00	39	1-246-766-00	270	1-246-776-00	1.8k	1-246-786-00	12k	1-246-796-00	82k	1-246-806-00	560k	1-247-050-00
6.2	—	43	1-246-827-00	300	1-246-837-00	2.0k	1-246-847-00	13k	1-246-857-00	91k	1-246-867-00	620k	1-247-059-00
6.8	1-246-757-00	47	1-246-767-00	330	1-246-777-00	2.2k	1-246-787-00	15k	1-246-797-00	100k	1-246-807-00	680k	1-247-051-00
7.5	1-246-818-00	51	1-246-828-00	360	1-246-838-00	2.4k	1-246-848-00	16k	1-246-858-00	110k	1-246-868-00	750k	1-247-060-00
8.2	1-246-758-00	56	1-246-768-00	390	1-246-778-00	2.7k	1-246-788-00	18k	1-246-798-00	120k	1-246-808-00	820k	1-247-052-00
9.1	1-246-819-00	62	1-246-829-00	430	1-246-839-00	3.0k	1-246-849-00	20k	1-246-859-00	130k	1-246-869-00	910k	1-247-061-00
10	1-246-759-00	68	1-246-769-00	470	1-246-779-00	3.3k	1-246-789-00	22k	1-246-799-00	150k	1-246-809-00	1 M	1-247-053-00
11	1-246-820-00	75	1-246-830-00	510	1-246-840-00	3.6k	1-246-850-00	24k	1-246-860-00	160k	1-246-870-00		
12	1-246-760-00	82	1-246-770-00	560	1-246-780-00	3.9k	1-246-790-00	27k	1-246-800-00	180k	1-246-810-00		

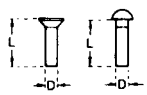
1/4 WATT CARBON RESISTORS

Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-576-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-577-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-578-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-579-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-580-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-581-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-582-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-583-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-584-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-585-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-586-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-587-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

HARDWARE NOMENCLATURE

Screw: – P 3 x 10

- *L: Length in mm*
- *D: Diameter in mm*
- *Type of head*
- *Indicated slotted-head only. Unless otherwise indicated, it means cross-recessed head (Phillips type).*



Nut, Washer, Retaining ring: N 3

- *Diameter of usable screw or shaft*
- *Reference designation*

Reference Designation	Shape	Description	Remarks
		SCREWS	
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
		SELF-TAPPING SCREWS	
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
		SET SCREWS	
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
		NUT	
N		nut	
		WASHERS	
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
		RETAINING RINGS	
E		retaining ring	
G		grip-type retaining ring	

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